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ABSTRACT

This study is a follow-up of a 2001 study that examined changes in the welfare and work participation of single mothers. This study addresses whether single mothers earn enough to compensate for loss of benefits under welfare reform and the extent to which these women have access to income from sources other than their own earnings. Data come from the Current Population Survey and the Survey of Income and Program Participation. Results indicate that single mothers' poverty levels have reached record lows post-welfare reform. The reduction in poverty is particularly large among those groups of single mothers who have always had the highest poverty levels and welfare participation (black and Hispanic women, never married mothers, and high school dropouts). Welfare reform has led to a surge in the employment of single mothers and is the largest single factor responsible for the rise in single mothers' work participation. Single mothers' incomes rose significantly post-reform. On average, single mothers earned $11.60 per hour in 2001, which was considerably more than minimum wage. Single mothers did better economically the longer they were off welfare. Among single mothers who left welfare after 1994, each additional year worked between 1994-98 was associated with an increase in hourly pay of about 2 percent. (Contains 28 endnotes, 22 tables, and 9 figures.) (SM)

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Civic Report

No. 35 March 2003

ED 476 302

Gaining Ground, Moving Up: The Change in the Economic Status of Single Mothers Under Welfare Reform

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Executive Summary

The report's main findings are as follows:

Single Mothers' Poverty Levels Reached Record Lows Post-Welfare Reform

- Between the passage of welfare reform (1996) and 2001—a recession year— the poverty rate of single-mother families declined by about 20%, from 41.9% in 1996 to 33.6%, slightly above the record low for single mothers attained in 2000. The poverty decline is in large part a by-product of the transition from welfare to work induced by welfare reform.
- The reduction in poverty was particularly large among those groups of single mothers who have always had the the highest levels of poverty and welfare participation—black and Hispanic women, never-married mothers, and high school dropouts.

Welfare Reform Leads to a Surge in the Employment of Single Mothers

- The proportion of single mothers who worked at all during the year increased rapidly, from 76% in 1996 to 82% in 2001. The proportion who worked half of a full year or more increased from 60% to 70%, and the proportion working a full year increased from 44% to 52%.
- Welfare reform was the largest single factor responsible for the rise in single mothers' work participation, accounting for more than 40% of the increase between mid-1996 and the end of 2001. Only about 9% of the employment gain is attributable to the expansion of the economy during that period.

Single Mothers' Incomes Rise Significantly Post-Reform

- Single mothers' own cash incomes rose 21% between 1995 and 2000, even after averaging in those reporting zero cash income. Similar gains were experienced by single mothers of all demographic groups, including high school dropouts. These income gains occurred because the rise in the employment of single mothers resulted in earnings gains that far outweighed their loss in welfare benefits.
- Total household income (including non-cash benefits) increased significantly among those mothers who left welfare since 1996. Before leaving welfare, the average incomes of these women ranged from about 10% to 40% above the poverty level. By the end of the second year after leaving welfare their incomes were 50% to 70% above poverty.
- Single mothers, on average, earned $11.60 per hour in 2001, considerably more than the minimum wage. Only 4% of working single mothers earned the minimum wage or less. Even among those who are high school dropouts, only 8% earned the minimum or less.

Single Mothers Do Better Economically the Longer They Are Off Welfare

- Poverty drops steadily for women who leave welfare and the poverty decline grows with years since leaving. The poverty rate among women who left welfare in 1996, for example, fell by about 50% in four years.
- In addition, among single mothers who left welfare after 1994, each additional year worked between 1994 and 1998 was associated with an increase in hourly pay of about 2% and each additional year with the same employer increased pay by another 1%.

About the Authors

Note Regarding M. Anne Hill

Anne Hill died at the age of 48 on September 16, 2002, prior to the completion of this study. As a scholar and a friend, she is dearly missed by me, as well as by all who knew her. This study is dedicated to her memory.

—June O'Neill

June O'Neill is Wollman Professor of Economics at the Zicklin School of Business and Director of the Center for the Study of Business and Government, School of Public Affairs, at Baruch College, CUNY. She is also an Adjunct Scholar of the American Enterprise Institute in Washington, D.C. Between 1995 and 1999, Dr. O'Neill was on leave from Baruch College serving as Director of the Congressional Budget Office (CBO) in Washington. Earlier she held positions as Director of Policy and Research at the U.S. Commission on Civil Rights, senior economist on the President's Council of Economic Advisors, senior research associate at the Urban Institute, and research associate at the Brookings Institution.

Dr. O'Neill received a Ph.D. in economics from Columbia University. She was elected Vice President of the American Economics Association in 1998. Her published research covers several areas including wage differentials by race and gender, health insurance, tax and budget policy, and social security. Her prior publications on welfare issues include *Gaining Ground: Measuring the Impact of Welfare Reform on Welfare and Work; Work and Welfare in Massachusetts: An Evaluation of the ET Program; Lessons for Welfare Reform: An Analysis of the AFDC Caseload and Past Welfare-to-Work Programs (with Dave M. O'Neill)*; and *The Duration of Welfare Spells* (with Laurie Bassi and Douglas Wolf).

Dr. Hill was Professor of Economics and Chair of the Economics Department at Queens College and Senior Research Associate at the Center for the Study of Business and Government of Baruch College, CUNY. She received a Ph.D. in economics from Duke University and has written on determinants of underclass behavior, social welfare policy, the education of girls and women in the developing world, the economics of disability and the Japanese labor market. With Thomas J. Main, she wrote *Is Welfare Working? The Massachusetts Reforms Three Years Later* (The Pioneer Institute, 1998), as well as being the co-author, with Dr. O'Neill, of *Gaining Ground: Measuring the Impact of Welfare Reform on Welfare and Work*. Her work has been published in the *American Economic Review*, *The Review of Economics and Statistics*, and the *Journal of Human Resources* (among other journals).

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Gaining Ground, Moving Up: The Change in the Economic Status of Single Mothers Under Welfare Reform

Introduction

In August 1996, President Clinton signed legislation that radically changed welfare in the United States. Under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, welfare would no longer be an entitlement. The traditional, open-ended Aid to Families with Dependent Children was replaced with Temporary Assistance to Needy Families. The new law imposed a five-year time limit on the collection of welfare benefits, and strict work requirements for adult recipients.

The decline in welfare dependency since then has exceeded even the most optimistic forecasts. Between August 1996 and December 2001, caseloads plummeted. The number of families on welfare declined by 52%. Among families headed by a single mother – the predominant category of recipients – the change was truly extraordinary. Between 1988 and 1993, the welfare participation rate of this group ranged between 30 and 35%. By 2000, it had fallen to 13%; and in 2001, despite the weakened economy, it declined to 10%.

In an earlier study, *Gaining Ground: Measuring the Impact of Welfare Reform on Welfare and Work*, we found that the decline in participation was shared by all groups of single mothers.[1] Moreover, single mothers with characteristics associated with welfare dependence, such as being a high school dropout or a never-married mother, were among those with the largest declines. We also found that increases in employment went hand in hand with the decline in welfare dependency – and that the 1996 reform played a major role in both trends, even after factoring in the effects of an expanding economy.

But as welfare participation declined to levels not seen since the early 1960s, many observers voiced concern that single mothers were earning too little to raise themselves and their families out of poverty. Women on welfare typically have less education than the general population; and if they have been on welfare for many years, and have little work experience, they are likely to start with low wages when they do go to work. Do they earn enough to compensate for the loss of benefits? Since earnings typically rise with work experience, the picture is expected to improve with time, raising income and thereby lifting many single mothers out of poverty. Does it? To what extent do these women have access to income from sources other than their own earnings – from other government programs (e.g., food stamps), from a partner, or from other family members?

This report addresses those questions using two kinds of national data: (1) comprehensive annual data on single mothers from the Current Population Survey (CPS); and (2) panel data from the Survey of Income and Program Participation (SIPP) that allow us to identify welfare leavers and track their progress over several years.

In Section I, we examine poverty rates for single mothers and their families, before and after welfare reform. We find that poverty declined to record lows in the post-welfare reform period for all groups of single mothers, including those from racial and ethnic minorities and those with limited education who had sharply reduced their welfare participation from relatively high levels. Using panel data restricted to welfare leavers, we also find that poverty declined among single mothers who left welfare after welfare reform, and that a woman's likelihood of being poor continued to decline with the passage of time. In short, the poverty data show that single mothers substantially increased their incomes by leaving welfare and going to work.

In Section II, we detail changes in the work participation of single mothers and find that both the percentage employed and the intensity of employment increased dramatically in the post-reform period. We update and expand our earlier analysis of the determinants of work participation to include additional variables (such as the Earned Income Tax Credit) and again find that welfare reform was the most important factor explaining the rise in employment in the post-reform years, accounting for more than 40% of the employment gains.

In Section III, we examine the annual and hourly earnings of all single mothers as well as those who left welfare. We find that single mothers, on average, earned $11.60 per hour in 2001, considerably more than the minimum wage. In fact, only 4% of working single mothers earned at or below the minimum; and even among those who are high school dropouts, only 8% were at or below the minimum. More importantly, we find that mothers who leave welfare, like workers generally, earn more per hour for each year they remain at work, and their hourly pay is further enhanced for each year they stay with the same employer.

Finally, in Section IV, we examine inflation-adjusted changes in total income and its components for single mother households from 1993–2000. We find that the gain from increased earnings far outweighed the loss in welfare benefits, resulting in a 29% rise in single mothers' own cash income between 1993 and 2000, even after averaging in those reporting zero cash income. Similar gains were experienced by single mothers at all levels, even those who had dropped out of high school.

Most single mothers have recourse to additional sources of income, in the form of non-cash benefits and the income of those with whom they share their households. About half of single mothers live with a male partner or other adults, and close to 90% receive additional income from the EITC and/or non-cash benefits such as food stamps. Income from those additional sources (net of taxes) boosted the income available to single mothers by 59% in 2000. That more complete measure of income had increased by 26% between 1993 and 2000, reaching $36,000 in 2000.[2]

Viewed by their position in the income distribution, single mothers in the second lowest income quintile, the quintile with the largest proportion on welfare before welfare reform (two-thirds were on welfare in 1994), experienced large increases in income, moving from an average of 10% above the poverty level before 1995 to an average of 32% above in 1995–2001 (based on full household income). As explained below, the reporting of income in the lowest quintile is erratic. But nonetheless, the full post-tax household income of the poorest 20 percent of single mothers, which was generally below or just at the poverty level between 1988 and 1995, rose to an average of 9% above that level between 1996 and 2001.

When we track changes in the total household income of those mothers who left welfare in the years since 1996, we find further evidence of progress. Before leaving welfare the incomes of these women ranged from about 10 to 40% above the poverty level. By the end of the second year after leaving welfare their incomes were 50 to 70% above poverty.

In sum, we find that the economic well-being of single mothers improved substantially after welfare reform. By sharply restricting the option of long duration income support and requiring work while on welfare, the reform measures provided strong inducement to leave welfare and go to work. Once in the work force, these women earned enough to raise their incomes significantly, despite the loss in welfare benefits. They also found that the longer they remained in the work force, the better their economic status became.

The large numbers of women who have left welfare in recent years have greatly improved their life chances. Many started with serious disadvantages. But they are gaining ground and moving up the economic ladder.

I. POVERTY

Poverty Rates Decline Substantially for Single Mothers After Welfare Reform

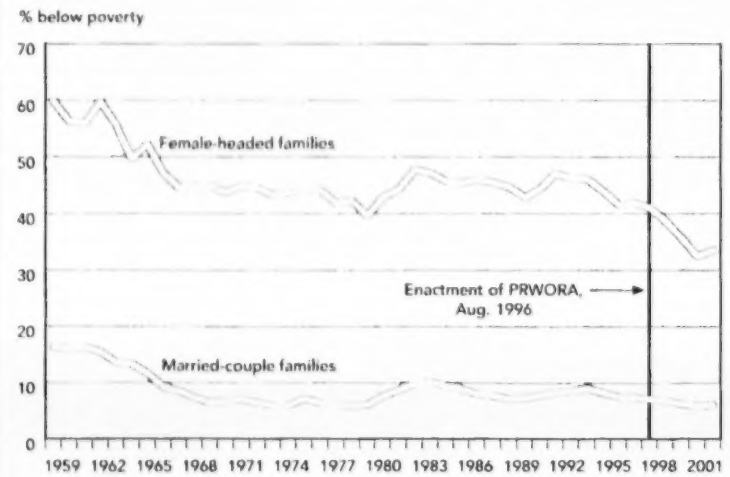
The percentage of single mothers in poverty did not rise after welfare reform, as many feared would happen. Instead, it declined substantially. In 1996, the "official" poverty rate for female-headed families was almost 42% (Figure 1). By 2000, that rate had fallen to 32.5%, the lowest level for single mothers since the government started measuring poverty in 1959. Although it rose by one percentage point in 2001, poverty among single mother families remains well below the 1996 rate.

The data in Figure 1 refer to all female-headed families – those still on welfare and those who have left. However, the pattern suggests that the subgroup of welfare leavers also experienced a decline in poverty. A significant fraction of single mothers left the welfare rolls between 1996 and 2001. If poverty had *increased* for this sizable group, it is highly unlikely that the overall poverty rate for female-headed families could have declined as much as it did. We later confirm this inference by analysis of a panel of welfare leavers.

Does the decline in poverty depend on the particular definition of income on which the measure is based? For example, some observers contend that welfare leavers have lost enough in non-cash benefits, such as food stamps, which are excluded in the official poverty measure, to offset any gains in earnings. Figure 2 shows how the poverty rate for single mothers changes over time under different and increasingly comprehensive measures of income and the family unit.[3]

The official definition (Definition I), which excludes the income of a male partner as well as non-cash income such as food stamps, and tax credits such as the Earned Income Tax Credit (EITC), yields the highest poverty rate in all years. Adding the income of the male partner (Definition II) lowers the rate somewhat, and more so in recent years, reflecting the increase in cohabiting couples.[4] The third definition – which includes the income of a male partner and adds the estimated value of the EITC – significantly lowers the rate, reflecting both the increased value of the credit (particularly between 1992 and 1996) and the increase in work participation among single mothers.[5] Under Definition IV – which adds the estimated value of non-cash benefits, and subtracts state and federal taxes[6] – incomes are, on balance, raised, and the proportion of poor, single-mother families is considerably reduced. But as work increases and earnings rise, means-tested non-cash benefits are reduced

Figure 1
Changes in the Poverty Rates of Female-Headed and Married-Couple Families with Children under 18: 1959–2001 ("official" poverty definition)



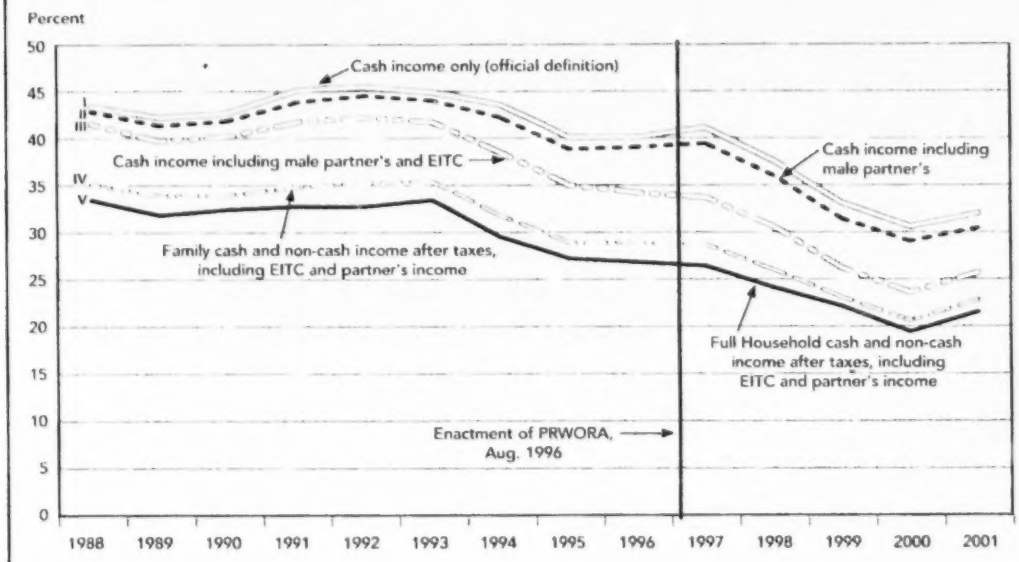
Note: Prior to 1973, married-couple families include families with male householder, no wife present, because the poverty status of this small group was not separately tabulated.

Source: Poverty in the United States (historical tables), March CPS, U.S. Bureau of the Census.

and tax payments rise. For that reason, the difference in the poverty rate under definitions III and IV is smaller in recent years than it was in earlier years. Definition V is similar to IV but broadens the family unit to include the income of all household members, resulting in a slightly lower poverty rate in all years.

Taken together, Figures 1 and 2 show that no matter what definition of poverty we use, the poverty rate of single mothers declined significantly in the period after welfare reform. Using the official rate, it declined from 40.1% in 1996 to 32% in 2001—about a 20% drop. The percent decline was approximately the same under Definition V.

Figure 2
Changes in the Poverty Rate of Single Mother Families Under Five Alternative Definitions of Income



Note: Calculated from March Current Population Survey microdata files, 1989–2001. Non-cash benefits and taxes (including EITC) are based on Census estimates. Single mothers are restricted to those ages 18-44 with own children under 18 years of age.

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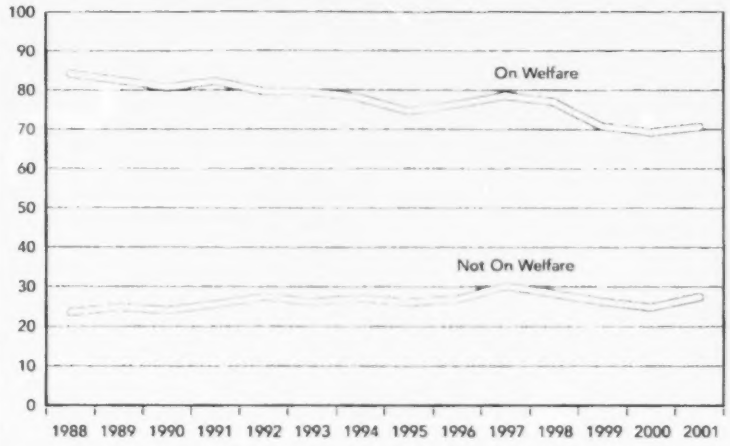
Differences Between Welfare Recipients and Non-Recipients

Single mother families on welfare have always been among the highest poverty groups in the U.S. Under the official definition, about 80% were in poverty between 1988 and 1993; and even under Definition V, it was as high as 60%. As Figures 3-A and 3-B show, the poverty rates of single mothers who are not on welfare have always been dramatically lower—65 to 70% lower. That difference is partly attributable to the higher skill levels of those not on welfare. But it is also attributable to the fact that welfare benefits, even counting non-cash supplements, are ultimately limited and cannot provide as high an income as earnings, which rise with effort and experience.

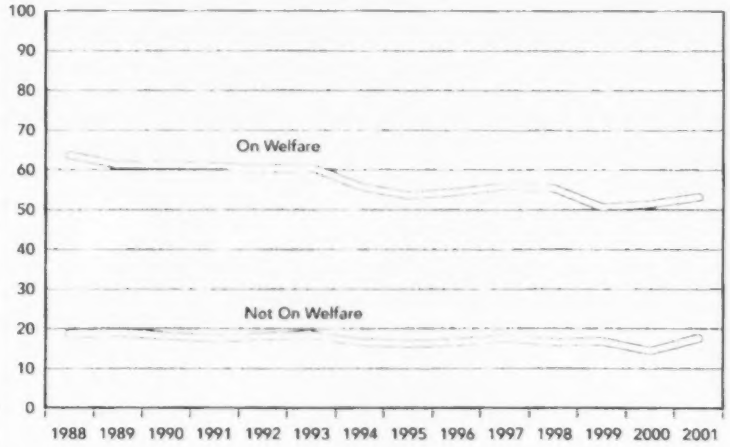
In the years since welfare reform began, poverty has declined among single mothers primarily because they have left welfare. There has been some decline in poverty among single mothers who receive welfare, mainly as a result of an increase in their work participation and earnings. However, what is really striking in figures 3-A and B is that poverty did not rise significantly among single mothers who are not on welfare. During the period following welfare reform, the poverty rate of single mothers not on welfare might have been expected to rise markedly, because of the growing share of recent welfare leavers with relatively weak work-related skills.[7] However, that did not happen. After a small rise in 1997, the first full year of welfare reform, the poverty rate of single mothers who are not on welfare declined, returning to its historical levels.

Figure 3
Poverty Rates of Single Mother Families by Welfare Status and Definition of Income

A. Percent with income below poverty threshold based on CASH INCOME (Definition I)



B. Percent with income below the poverty threshold based on FULL HOUSEHOLD INCOME (Definition V)



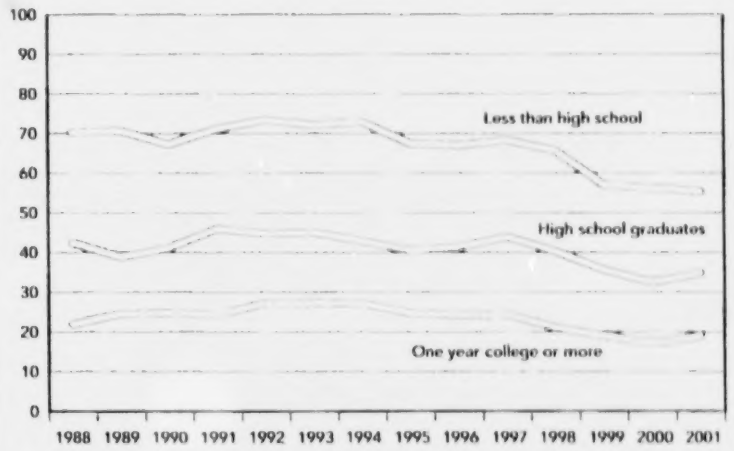
Note: Calculated from March Current Population Survey micro data files, 1989–2002. Single mothers are restricted to those ages 18–44 with own children under 18 years of age. The poverty rates in Panel A are based on the cash income of the mother and her family members only (official definition). Panel B is based on full household income and adds the EITC and includes non-cash benefits and income of male partner and any other household members and substracts taxes paid. See text and Figure 2 for further information.

Education, Race and Marital Status

The reduction in poverty was not limited to the more advantaged single mothers. Rather, it extended to racial and ethnic minorities and to single mothers with the lowest skills, such as high school dropouts.

Single mothers who are high school dropouts, who are black or Hispanic, or were never married, historically have had relatively high rates of welfare participation and poverty. These groups were strongly impacted by welfare reform and all experienced large declines in welfare participation and significant increases in work participation during the 1990s.[8] As shown in Figures 4–6, the decline in poverty is striking for these vulnerable groups. Between 1993 and 2001, the poverty rates of high school dropouts, black and Hispanic mothers and never-married mothers declined by about 17 percentage points and the absolute difference between their poverty rates and the poverty rates of more advantaged single mothers narrowed. The decline in poverty for these groups that occurred between 1993 and 1995 likely reflected the economic recovery. But after stalling during the transition period 1995–1997, the decline continued and in fact accelerated once welfare reform was fully implemented.[9] Poverty rose somewhat for these groups in the recession year of 2001, with the exception of high school dropouts who experienced a small poverty decline.

Figure 4
Poverty Rates of Single Mother Families by Education (based on cash income)



Note: Calculated from March Current Population Survey micro data files, 1989–2002. Single mothers are restricted to those ages 18–44 with own children under 18 years of age. The poverty rates are based on the cash income of the mother and her family members only (official definition).

Did Poverty Decline for Welfare Leavers?

It is clear that the fraction of single mothers in poverty declined greatly during the 1990s and especially between 1996 and 2001, a period in which the percent of single mothers on welfare declined rapidly. Although it is highly likely that the poverty rate of those who made the transition from welfare also declined, the magnitude of that change cannot be directly observed in the aggregate data shown. That is because the Current Population Survey, the basic source for representative, nation-wide data on income (the source for Figures 1–6) essentially provides annual snapshots of the population. It does not follow the same families and individuals over time, and therefore cannot provide direct information on the changes in income of those who actually left welfare. For direct evidence on welfare leavers, we have turned to the Census Bureau's Survey of Income and Program Participation (SIPP).

Unlike the Current Population Survey, the SIPP is designed to follow sample members over a number of years. Women were interviewed at the start of 1996, and subsequently every four months, through the end of 1999.[10] The SIPP data, however, have several limitations, one being a rather high rate of attrition. Because we are interested in tracking the behavior of welfare leavers over a long enough period to observe transitions and adjustments, we confine our sample to those who remained in the sample for all of the 12 interviews during the four-year survey. To deal with certain ambiguities in the data we define welfare leavers as women with children who are observed to be on welfare for at least four months out of six months, followed by an eight-month period with at least four months off welfare.[11] However, leaving welfare is not, and probably cannot, be defined with razor-sharp precision.[12]

Figure 5
Poverty Rates of Single Mother Families by Race (based on cash income)

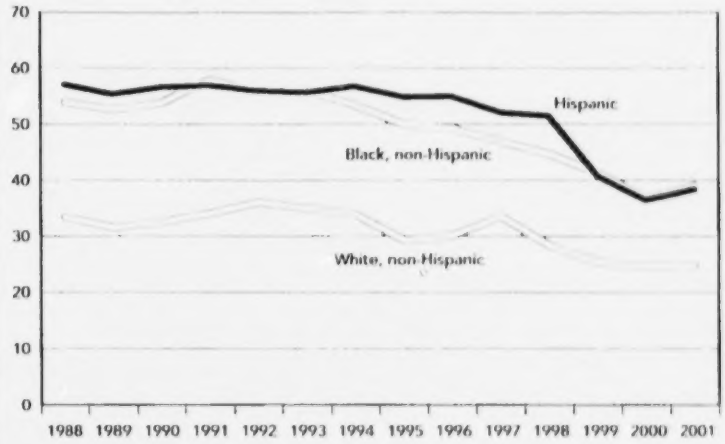
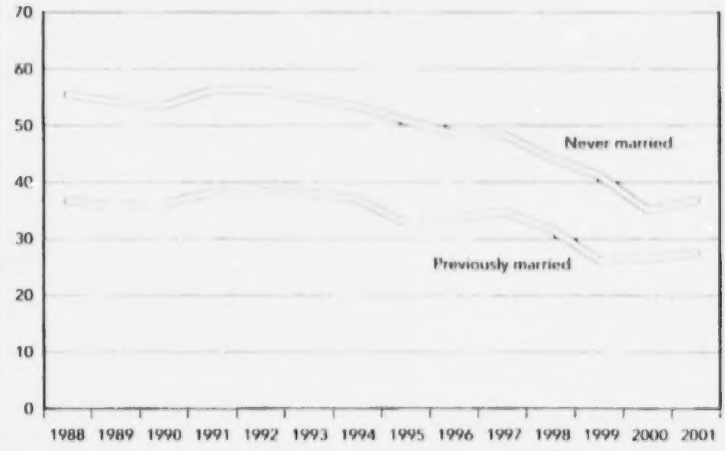


Figure 6
Poverty Rates of Single Mother Families by Marital Status (based on cash income)



Note: Calculated from March Current Population Survey micro data files, 1989-2002. Single mothers are restricted to those ages 18-44 with own children under 18 years of age. The poverty rates shown are based on the cash income of the mother and her family members only (official definition).

Starting with those who left welfare in the second half of 1996, we have tracked the poverty status of seven successive cohorts of women who qualify as welfare leavers. Poverty status is measured over a six-month period. Table 1 shows poverty status at six-month intervals for periods before and after exiting welfare. To obtain a better picture of the recipient's prior economic situation, poverty status prior to the six-month period before the exit is also shown.

The poverty status of the seven cohorts of welfare leavers is measured in Panel A based on the official definition (family cash income, excluding the Earned Income Tax Credit) and in Panel B it is based on cash income plus the earned income tax credit (EITC). In Panel C poverty status is based on household income, rather than family income and therefore includes income from a male partner, if present. It also includes the value of non-cash benefits, but does not subtract taxes because the information was not available for doing so.

The SIPP panel data show that no matter how poverty is measured, women with children who left welfare during the years 1996–1999, on average, experienced a significant decline in poverty.[13] Poverty nearly always declines in the first six months off welfare,[14] and the decline intensifies the longer a woman is off welfare.

The importance of allowing for time to evaluate the economic well-being of welfare leavers is evident in Table 1. The 1996 cohort is the group for whom we have the longest period of post welfare observation. Measured in terms of cash income only, their poverty rate in the last six months on welfare was approximately 58%. It fell to roughly 51% in the first period off welfare, declined to less than 45% in the end of the second year off and was just below 32% in the first half of the fourth and last year observed—a nearly 50 percent drop in the poverty rate in four years. Based on the more comprehensive measure—household cash and non-cash income—this cohort's poverty rate fell from about 46% in the last period on welfare to less than 30% in the first period off welfare, falling to 19% in the beginning of the fourth year—a decline of nearly 60%. Although we cannot follow them as long, the more recent cohorts appear to be following a similar path.

The rates of decline in poverty for welfare leavers shown above suggest substantial convergence in income with the general population of single mothers. By the fourth

Table 1
Tracking the Poverty Status of Cohorts of Welfare Leavers (Under Three Definitions of Poverty) Using SIPP Panel Data in the Months Before and After Leaving Welfare, 1996–1999

	Sample Size
A: Percent in Poverty based on FAMILY CASH INCOME (excluding EITC)	
Cohort leaving welfare after:	
first 6 mths in 1996	121
second 6 mths in 1996	98
first 6 mths in 1997	150
second 6 mths in 1997	80
first 6 mths in 1998	140
second 6 mths in 1998	80
first 6 mths in 1999	100
B: Percent in Poverty based on FAMILY CASH INCOME (including EITC) [1]	
Cohort leaving welfare after:	
first 6 mths in 1996	121
second 6 mths in 1996	98
first 6 mths in 1997	150
second 6 mths in 1997	80
first 6 mths in 1998	140
second 6 mths in 1998	80
first 6 mths in 1999	100
C: Percent in Poverty based on HOUSEHOLD CASH AND NON-CASH INCOME [2]	
Cohort leaving welfare after:	
first 6 mths in 1996	121
second 6 mths in 1996	98
first 6 mths in 1997	150
second 6 mths in 1997	80
first 6 mths in 1998	140
second 6 mths in 1998	80
first 6 mths in 1999	100

Note: Population restricted to women ages 20–55 (last panel interview
leavers are those who are observed to be on welfare for at least 4
off welfare. Some leavers return to welfare in later periods and they
cohort in that earlier period, whether or not they were on welfare in a

[1] Includes estimated EITC, excludes all non-cash benefits.

[2] Total household cash income plus the value of non-cash benefits and
income of a male partner, if present, is included in household's income

Months Before Exit						*Six-month period on welfare before exit*	Months After Exit						
37–42 months	*31–36 months*	*25–30 months*	*19–24 months*	*13–18 months*	*7–12 months*		*First 6 months*	*7–12 months*	*13–18 months*	*19–24 months*	*25–30 months*	*31–36 months*	*37–42 months*
						57.9	51.4	51.7	44.8	44.8	35.0	32.7	31.8
					69.8	65.8	54.2	61.3	48.2	50.4	50.2	48.0	
				72.0	70.0	67.0	55.9	46.4	53.3	46.4	45.6		
			67.0	76.4	70.7	64.3	64.9	64.6	57.5	55.2			
		60.4	57.6	62.5	63.9	61.9	54.7	51.6	51.9				
	72.6	68.2	74.9	76.2	77.2	73.6	63.4	57.1					
62.7	67.8	61.9	65.1	68.2	67.8	60.7	51.8						
						55.8	42.4	38.6	39.0	40.8	27.2	29.0	24.9
					67.4	60.3	44.3	53.0	45.2	43.4	40.5	41.5	
				64.6	65.4	62.1	47.7	40.5	45.0	38.7	35.6		
			66.4	71.0	68.1	57.9	55.1	54.9	49.1	38.8			
		57.8	50.3	59.7	58.0	56.7	52.0	46.0	43.1				
	62.6	66.2	69.2	65.8	68.4	62.8	52.6	49.1					
57.0	62.7	58.9	61.0	61.8	62.4	52.9	46.7						
						46.1	30.4	31.2	33.5	28.8	18.8	23.8	19.2
					58.2	43.5	32.0	39.7	35.3	36.5	33.3	33.1	
				53.6	52.3	43.7	35.4	30.1	35.6	31.4	28.6		
			57.5	58.6	55.6	46.7	45.4	46.6	46.6	32.8			
		46.9	39.1	47.3	45.9	45.6	41.2	39.3	38.3				
	52.3	54.0	51.9	54.8	55.4	43.3	47.7	42.0					
43.2	43.9	43.9	53.8	50.5	50.8	42.6	38.7						

with children under age 18 (in 6-month period before exit) and who did not attrite from the sample in any of the 12 waves. Welfare months out of a 6-month period (the 6-month period on welfare before exit) followed by an 8-month period with at least 4 months are included in the post-exit months. Similarly, the poverty statistics for the 6–42 months prior to exit include all of those in the particular 6-month period.

including our estimate of the EITC. Non-cash income aggregates dollar values for food stamps, WIC, and energy assistance. The information was not available on taxes paid and is excluded.

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year, the poverty rate of the first cohort of leavers is quite close to that of all single mothers who do not receive welfare, as reported in the CPS.[15]

Changes in poverty reflect changes in income, which for most people are largely tied to earnings. Because the decline in welfare participation during the 1990s was accompanied by a significant rise in employment among single mothers, we should not be surprised to find that poverty declined among single mothers in general, and welfare leavers in particular. Based on these observations, we expect that the impressive decline in the poverty rate of single mothers, although interrupted during the current economic downturn, will resume during economic recovery, as the accumulated work experience of welfare leavers continues to pay off.

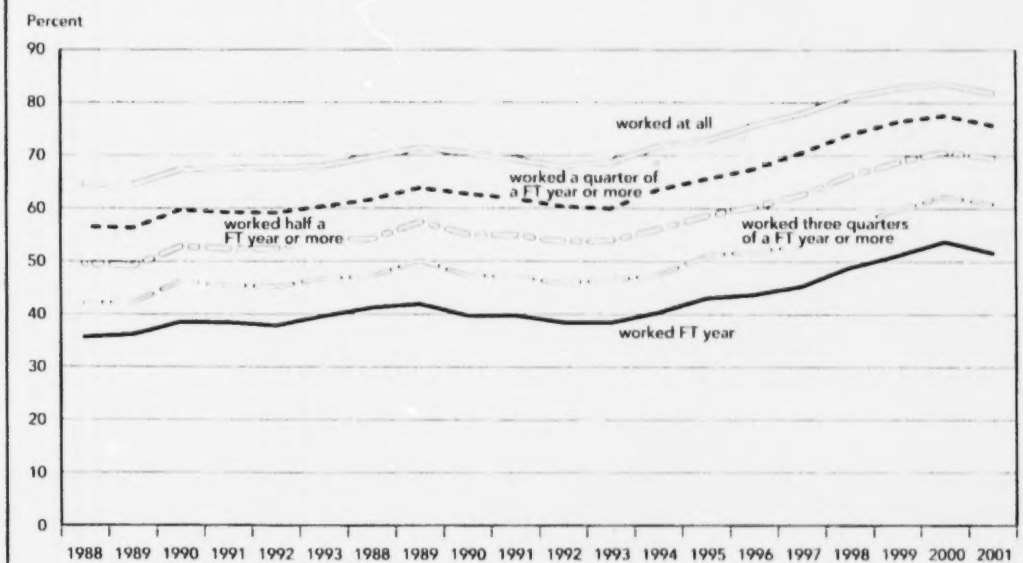
II. WORK PARTICIPATION

Improving self-sufficiency through increased work experience and higher earnings was a major goal of welfare reform and has proven to be a major route out of poverty for single mothers. In this section and the next, we examine changes in work participation and earnings using the CPS for an overview, and turn to SIPP and other longitudinal data for more direct evidence on outcomes for welfare leavers.

Changes in the work participation of single mothers over the last ten years are quite remarkable. As shown in Figure 7, the percentage of single mothers who work began to increase sharply after 1992, and that increase occurred at all levels of intensity. Thus, the proportion of single mothers who worked at all during the year increased from 68% in 1992 to 82% in 2001—a 20% increase. And that is after a small decline in participation from 2000 to the higher unemployment year of 2001. But even larger increases were made in the percentage of single mothers who work three-quarters of a full-time year or more. In 2001, 61% of single mothers worked three-fourths of a year or more—a dramatic 33% increase from the 1992 level of 46%; 54% worked a full year, a 34% increase over the 1992 level.

Although the increase in the percentage of single mothers who work at all during the year seems to have proceeded at about the same pace over the 1992–2000 period before turning down in 2001, the increase in

Figure 7
Work Participation Rates of Single Mothers by Proportion of Year Worked



Source: Calculated from micro data files, March Current Population Survey. Single mothers are restricted to those ages 18–44 with own children under 18 years of age. FT–full-time.

high intensity work accelerated after 1996. Thus, the proportion of mothers who worked three-fourths of a year or more increased by 13% (a gain of 6 percentage points) from 1992–1996, but increased by 20% (a gain of more than 10 percentage points) between 1996 and 2000.

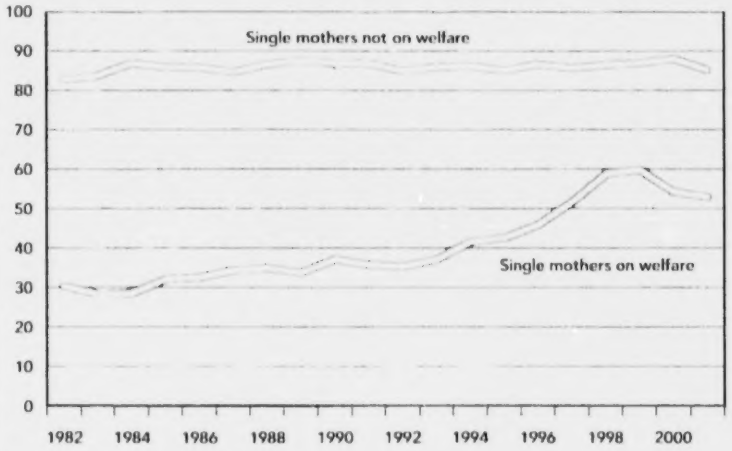
The 1992–1996 gains are likely to have been influenced by declining unemployment and a significant expansion of EITC benefits, as well as state welfare reform initiatives. But none of these occurrences are convincing explanations for the post-1996 acceleration in high intensity work participation. After 1996, unemployment continued to decline, but not by as much as it had in the recovery period after 1992. In addition, the EITC was indexed and did not rise in real terms after 1996. However, welfare reform was enacted in 1996, giving new momentum for single mothers on welfare to leave, and for those not on welfare to stay off. Both the time limit and the work requirements provided strong incentives to become self-supporting, and that would have given the impetus to a greater intensity of work.

Because the changes in work participation are so dramatic, it seems reasonable to infer that welfare leavers attained a relatively high level of work participation. Otherwise, the change in welfare status would have depressed the observed work participation rates of all single mothers and certainly would have depressed the rates of single mothers who are off welfare. In Figure 8 we observe that in fact the participation rates of single mothers off welfare did not drop by any significant amount. After a small decline from 1996 to 1997, the participation rate of single mothers off welfare rose to an even higher level. Participation rates for this group are now very high, with 85% ever working during the year in 2001 and 66% working at least three-fourths of a full-time year.

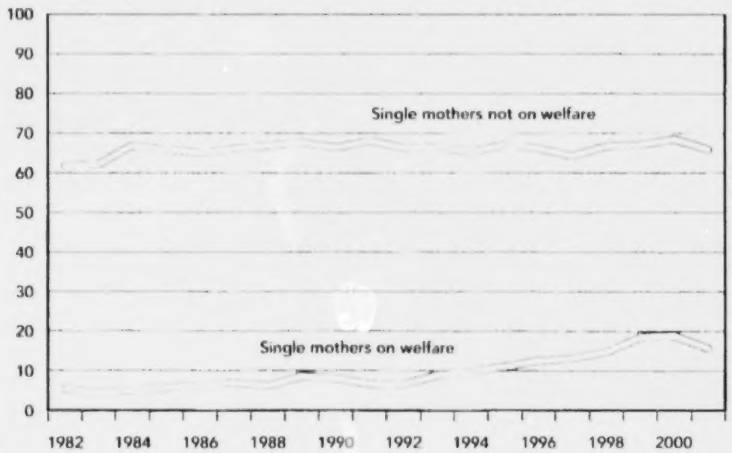
Although there is still a significant difference in the employment rates of those on and off welfare, Figure 8 depicts a striking increase in the

Figure 8
Work Participation Rates of Single Mothers by Welfare Status and Intensity of Work

A. Percent of single mothers who worked at all during the year



B. Percent of single mothers who worked at least three quarters of a full-time year *



* A full-time year is defined as 1820 hours or more. At least three quarters of a full-time year is 1365 hours or more.

Source: Calculated from micro data files, March CPS. Single mothers are restricted to those ages 18–44 with own children under 18 years of age.

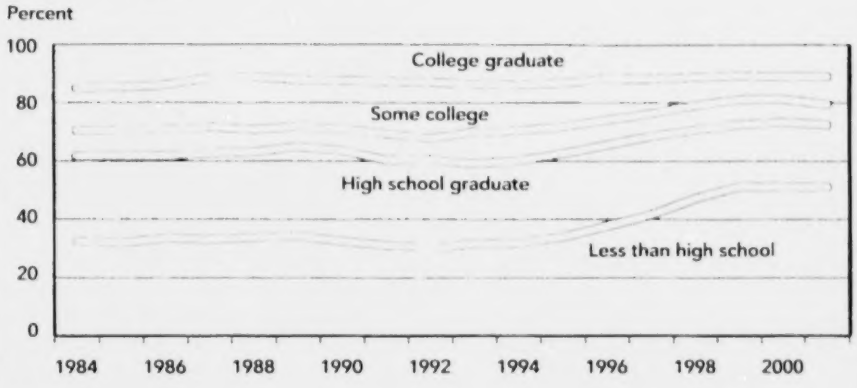
work participation of single mothers on welfare. Between 1982 and 1997, single mothers who received welfare worked relatively little. The proportion working ever during the year reached only 35% in 1992 and the percentage working three-fourths of a full-time year seldom exceeded 6 or 7%. But those rates moved much higher in the late 1990s.

Less educated single mothers, especially those who never finished high school, as well as black and Hispanic single mothers, have always had relatively high rates of welfare participation and low rates of work participation. As displayed in Figures 9A and 9B these groups have made dramatic increases in employment through 2001, outpacing the gains in employment of more educated single mothers or those who are white and non-Hispanic. For example, the proportion working among high school dropouts rose by 35% between 1996 and 2001, more than three times the rate of increase of high school graduates or those with some college.

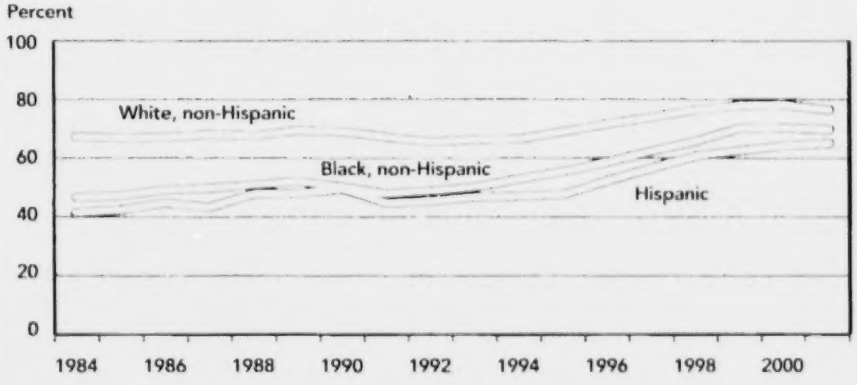
In our previous study, *Gaining Ground*, we showed that welfare reform strongly impacted single mothers, particularly those with characteristics associated with high welfare participation, and led to much of both the decline in their welfare participation and the rise in their work participation.[16] The timing and pattern of change in work participation reviewed here is consistent with that conclusion. However, our earlier study did not include the full recession year of 2001, nor did it specifically account for increases in the EITC. Because the rise in the maximum EITC benefit for two-child families

Figure 9
Percent of Single Mothers Employed Last Week by Number of Children, Education and Race

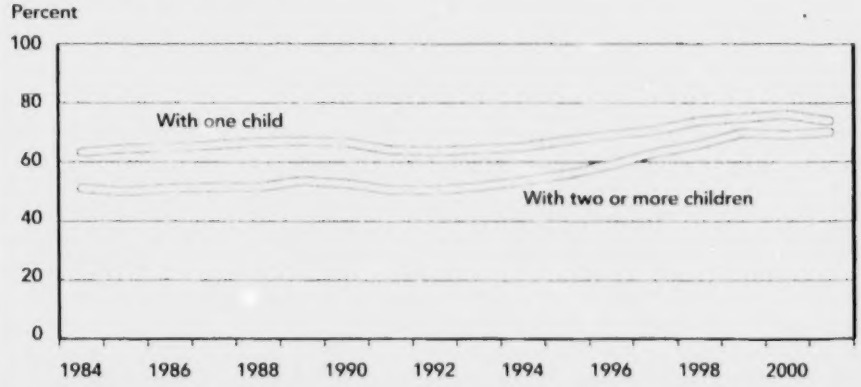
A. By Education



B. By Race



C. By Number of Children



Source: Calculated from micro data files, CPS Outgoing Rotation Groups (ORG) for single mothers ages 18–44. Employment is based on monthly reports of current labor force status and the annual numbers shown are averages of the 12 months.

between 1992 and 1996 was about three times larger than that for one-child families,[17] one would expect to find a larger effect of the EITC on the work participation of mothers with two or more children, a fact that Figure 9C confirms. These observations raise the question of whether inclusion of the EITC expansion and updating our analysis to include the downturn of 2001 would alter our findings about the effect of welfare reform on the rise in employment among single mothers.

Accounting for the Increase in Employment

We have revisited our work from *Gaining Ground* estimating the contributions of welfare policy and other factors to the observed changes in work participation. This time, however, we include the changes in the EITC as a potential factor and add an extra year of post-TANF data. We utilize the same basic methodology; but we now base the analysis on monthly data from the CPS, Outgoing Rotation Group (ORG) files. The monthly data allow for more accurate assignment of changes in unemployment and welfare policies in each state, as well as more accurate measurement of employment and other variables.

As in *Gaining Ground*, we conduct multiple regression analyses to estimate the separate net effects of welfare policy, the EITC, unemployment, and other relevant economic, policy and demographic factors.[18] We then use these coefficients to simulate the predicted change in the work participation of single mothers due to a change in a variable, such as welfare policy, during a specific period. The relative contribution of welfare policy is then presented as a ratio of (a) the predicted change induced by the policy to (b) the actual change in work participation that occurred over the specified period. The same procedure is followed for estimating the contribution of any other variable of interest.

Table 2
The Contribution of Welfare Reform, Changes in Unemployment, and the EITC to the Increase in Work Participation of Single Mothers

	Waiver Period (Before TANF): Jul–Dec, 1993– Jan–Jun, 1996	TANF Period: Mar–Aug, 1996– Jul–Dec, 2001
Actual change in the percent employed (in percentage points)	4.45	8.63
Inferred share of the change in the percent employed contributed by:		
(1) Welfare policy [1]	2.3%	43.7%
(2) Change in unemployment	25.0%	9.3%
(3) Increase in EITC maximum credit for one and two child families	0.1%	0.0%

[1] Welfare policy in the waiver period refers to the implementation of a major waiver by states, which implemented such waivers at different times. Although TANF was enacted in August 1996, it was implemented in different states at different times, starting in September 1996 and ending in January 1998. Thus welfare policy in the second period is largely the effect of TANF, although the termination of waivers is incorporated.

Note: The contributions of welfare reform, the change in unemployment and the EITC to the increase in the percent employed among single mothers are estimated based on regression coefficients that measure the effect of each of these factors on the percent employed and the changes in the proportion of single mothers exposed to the variable. See text for additional explanation. The basic data source for the regression results is the CPS micro data files for the Outgoing Rotation Groups (ORG), monthly data for the period 1984–2001. The inferred shares do not sum to 100 because factors other than those shown also contribute to the outcomes.

Table 2 displays estimates of the contributions of the changes in welfare policy, unemployment and the EITC maximum benefit to the change in work participation of single mothers during two periods: July–December 1993 to January–June 1996 and March–August, 1996 through July–December, 2001.[19] During the first period unemployment declined sharply, the EITC was expanded dramatically and welfare policy changes consisted largely of a variety of different measures adopted in different states at different times. During the second period welfare reform was implemented and most states overhauled their welfare policies. Although unemployment initially declined, during this period it turned up again in the latter half of 2001, and the EITC—which had been indexed—did not increase in real terms.

Over the pre-TANF period the proportion of single mothers who worked rose by 4.5 percentage points (from 58.6% to 63.1%). The simulations shown in Table 2 indicate that the decline in unemployment accounted for 25% of this gain, while welfare policy under the state waivers accounted for only 2.3%. The change in the EITC, surprisingly, contributed almost nothing.

Over the second five-year period, which starts just before TANF was implemented in most states, the proportion of single mothers who worked increased by 8.6 percentage points (from 63.3% in March–August 1996, to 72% in July–December 2001). The simulations indicate that welfare reform under TANF contributed 43.7% to that employment gain, while changes in unemployment accounted for 9.3%. The EITC had no measurable effect.[20]

It should be kept in mind that it can be difficult to account statistically for changes in one variable when a number of plausible explanatory factors are changing. Some variables may have lagged effects; others (for example, TANF) may have anticipatory effects; and many are difficult to measure accurately (such as the precise content of welfare reform in different states under waivers and even TANF). However, while the contribution of welfare reform to the employment gains of single mothers probably cannot be determined precisely, the results of our analysis are consistent with the abundant evidence we have examined. The many charts show the unprecedented changes in the employment of single mothers during a period when welfare policy was radically transformed.

III. EARNINGS, WAGE RATES AND OTHER ASPECTS OF EMPLOYMENT

Earnings are likely to be the foundation of income for women who leave welfare and seek to become self-sufficient. In this section we examine the annual earnings, hourly wage rates and occupations of single mothers. Because of data limitations, some ingenuity is required to assess the economic opportunities and status of women who leave welfare. As before, we first utilize the large national samples available in the CPS, focusing on single mothers, particularly those with characteristics associated with welfare receipt. For more direct information on welfare leavers, we also utilize available panel data from the National Longitudinal Survey of Youth (NLSY) and from SIPP.

We start with a summary of recent changes in annual earnings and hours worked during the year for all single mothers and for the two subgroups: welfare recipients and non-recipients. During the period shown in Table 3—1995/1996 to 1999/2000—the welfare participation of single mothers declined approximately from 28% to 14% while the percent employed increased from 72% to roughly 81%. Those who were employed increased their hours worked by an average of just above 3%. Annual earnings, however, increased from $19,383 to $21,403 (in 2001 dollars), a gain of more than 10%.

Over the same period, the rapidly shrinking subgroup of single mothers receiving welfare increased their annual earnings, and their hours worked, by much more than the average.[21] Single mothers who received no welfare also increased their annual earnings, although not by as much as mothers on welfare; nonetheless, they clearly work more hours, and earn much more, during the year than single mothers on welfare. Moreover, the influx of recent welfare leavers is likely to have depressed the overall average for the group of mothers who do not receive welfare.

Table 3
Hours Worked During the Year and Annual Earnings of Single Mothers by Welfare Status, 1988/89, 1995/96 and 1999/2000

	1988/1989	1995/1996	1999/2000	Change: 1995/96–1999/00
All single mothers				
Percent received any welfare benefits	31.3%	27.8%	14.2%	-13.6 percentage pt.
Percent employed	68.4%	72.0%	81.3%	9.3 percentage pt.
Among those who worked [1]:				
Hours worked during the year	1,674	1,696	1,749	3.1%
Annual total earnings (2001 dollars)	$19,709	$19,383	$21,403	10.4%
Welfare Recipients:				
Percent employed	30.5%	38.5%	52.6%	14.1 percentage pt.
Among those who worked [1]:				
Hours worked during the year	911	1,018	1,095	7.6%
Annual total earnings (2001 dollars)	$6,278	$6,787	$8,036	18.4%
Received No Welfare:				
Percent employed	85.6%	84.8%	86.0%	1.2 percentage pt.
Among those who worked [1]:				
Hours worked during the year	1,798	1,814	1,815	0.1%
Annual total earnings (2001 dollars)	$21,891	$21,582	$22,750	5.4%

[1] Single mother workers are restricted to those who reported positive earnings and those with more than 4 hours worked a week and more than 4 weeks worked during the year. Earnings include self-employment and wage and salary income.

Source: Calculated from March CPS, micro data for single mothers ages 18–44 with own children under 18.

Hourly Wages of Single Mothers

It is frequently assumed that women leaving welfare cannot expect to earn more than the minimum wage (currently $5.15). However, as Table 4 shows, the average hourly wage for all single mothers was $11.60 in 2001 and the median wage was $9.92. These wages were 80% and 83% respectively of the wages of married mothers. But as detailed in Table 4, single mothers have less education than married mothers. Married and single mothers with similar education levels do not differ markedly in their hourly wage rates.

Even among single mothers who are high school dropouts, the median wage in 2001 was $7 and the wage at the 25th percentile income percentile was $6.25. Moreover, high school dropouts make up only about 14% of single mothers and they do not appear to be a much higher percentage of women who have been on welfare.[22]

As shown in Table 5, only slightly more than 4% of working single mothers actually earned a wage at or below the federal minimum in 2001, and if they were high school dropouts that figure rose only to just below 7% among workers paid by the hour (just above 8% for all workers including those whose hourly wage is estimated based on weekly earnings data). As one might expect, these minimum wage workers are young. Among single mothers, roughly 40% were in the age group 18 to 24 in 2001.

Table 4
Mean Hourly Wage in 2001 and the Hourly Wage at Different Percentiles in the Wage Distribution: Single and Married Mothers by Education

	Number (in thousands)	Distribution by Education	*Hourly Wage in 2001* Mean	At Percentile: 25th	50th	75th
Single Mothers						
Total	5,640	100.0%	11.60	7.40	9.92	13.50
High School Dropout	782	13.9	8.02	6.25	7.00	9.00
High School Graduate	2,158	38.3	10.18	7.00	9.00	11.98
Some College	2,031	36.0	12.01	8.00	10.50	14.18
College Graduate	668	11.8	19.27	12.00	16.83	23.10
Married Mothers						
Total	12,285	100.0%	14.45	8.50	12.00	17.50
High School Dropout	922	7.5	8.09	6.25	7.30	9.50
High School Graduate	3,851	31.3	10.91	7.68	10.00	12.75
Some College	3,978	32.4	13.30	8.92	11.56	16.00
College Graduate	3,534	28.8	21.25	13.40	19.00	26.00

Note: The hourly wage is the reported wage for those paid by the hour and it is estimated for those paid on another basis using reported usual weekly earnings and usual weekly hours.

Source: CPS monthly data for the Outgoing Rotation Groups (ORG).

Table 5
Percent of Employed Single Mothers and Married Mothers in 2001 with an Hourly Wage At or Below the Minimum Wage ($5.15) and Up To 35 Cents Above the Minimum: Mothers Ages 18–44, by Education

	Single Mothers		Married Mothers	
	Percent at or below the minimum ($5.15)	Percent earning $5.15–5.50	Percent at or below the minimum ($5.15)	Percent earning $5.15–5.50
Workers Paid by the Hour				
Total	3.9	2.1	2.5	1.3
High School Dropout	6.8	4.4	6.2	2.8
High School Graduate	3.3	0.2	2.4	1.7
College (1 or more yrs)	3.5	1.3	1.8	0.6
All Workers [1]				
Total	4.2	1.7	2.6	1.0
High School Dropout	8.2	4.2	7.9	2.7
High School Graduate	3.8	1.7	3.1	1.6
College (1 or more yrs)	3.4	0.9	1.7	0.5

[1] All workers include both those paid by the hour, for whom the hourly wage is reported, and those paid on another basis (weekly, monthly, etc.) for whom the hourly wage is estimated based on reported usual weekly earnings and hours.

Source: Calculated from micro data files, CPS Outgoing Rotation Groups (ORG).

Occupations and Sector of Employment

The occupations that workers pursue are likely to be influenced by their education and work experience. It is therefore expected that single mothers would work in less skilled occupations than married mothers. Appendix Table E indicates that single mothers overall are less likely than married mothers to be employed as professional or technical workers and are more likely to work in service occupations. At the high school dropout level both single and married mothers are heavily concentrated in service and "other," mostly blue-collar jobs. As education rises, the proportion in professional and technical as well as managerial occupations rises as well.

The sector of employment is also strongly associated with education. Government and the non-profit sector employ more professional workers; consequently the higher the level of education, the more likely are both married and single mothers to be employed in those sectors. At the high school dropout level nearly 89% of employed single mothers work in the private for-profit sector compared to roughly 55% of college graduates who work there.

The Employment and Earnings of Welfare Leavers: Findings from Panel Data

While the CPS data above are illuminating, it could be that they do not accurately portray what is happening to the subgroup of single mothers who leave welfare. To ascertain economic outcomes directly for welfare leavers, we again turn to the SIPP. We use the SIPP panel data to track our seven cohorts of welfare leavers to observe changes in their work participation rates and weeks worked in each six-month period along with their average monthly earnings.

The picture is consistent with what we found for changes in poverty. It is also consistent with the view that welfare reform and the decline in welfare participation among single mothers strongly underlie the rise in employment and earnings observed in the CPS data for single mothers.

As shown in Table 6, employment tends to rise in the six-month period before leaving welfare and that pattern is more pronounced for the most recent leavers. However, after leaving welfare, employment continues to rise. Thus the proportion employed is around 50% in the last six months on welfare, which is considerably higher than it had been before then, and it continues to rise after leaving welfare. In the first six-month period off welfare, employment rates vary across cohorts from approximately 57% to 68%. They fluctuate from period to period; no doubt reflecting to some extent welfare returns and re-exits, as well as personal events. The pattern for the first two cohorts who are followed the longest, suggests an eventual work participation level of close to 75%.

Those women who are employed work about 20 to 22 weeks in a six-month period after leaving welfare, out of a potential 26 weeks. Their average monthly earnings usually increase, in some cases substantially,

Table 6
Tracking the Work Participation and Earnings of Women with Children Who Left Welfare, Using SIPP Panel Data in the Months Before and After Leaving Welfare, 1996–1999

	Months Before Exit			*Six-month period on welfare before exit*
	19–24 months	*13–18 months*	*7–12 months*	
A: Percent with any work experience in a 6-month period				
Cohort leaving welfare after:				
first 6 mths in 1996				41.3
second 6 mths in 1996			42.9	49.2
first 6 mths in 1997		35.8	37.5	47.8
second 6 mths in 1997	26.8	31.5	40.3	49.9
first 6 mths in 1998	43.3	45.2	43.1	50.6
second 6 mths in 1998	38.8	34.6	36.2	52.5
first 6 mths in 1999	38.0	37.1	38.9	51.0
B. Mean weeks worked by leavers with work experience during:				
Cohort leaving welfare after:				
first 6 mths in 1996				16.0
second 6 mths in 1996			14.2	15.3
first 6 mths in 1997		18.7	18.0	17.7
second 6 mths in 1997	17.5	17.3	17.6	20.1
first 6 mths in 1998	14.9	17.8	15.9	17.0
second 6 mths in 1998	18.9	17.7	16.6	18.2
first 6 mths in 1999	17.8	18.8	20.1	18.6
C: Mean monthly earnings (in 2001 dollars) of those with earnings, averaged over:				
Cohort leaving welfare after:				
first 6 mths in 1996				751
second 6 mths in 1996			494	553
first 6 mths in 1997		654	519	627
second 6 mths in 1997	504	446	422	644
first 6 mths in 1998	512	507	514	671
second 6 mths in 1998	819	594	707	649
first 6 mths in 1999	566	677	769	683

Note: Population restricted to women ages 20–55 (last panel interview) with children under age 18 (in 6-month period before exit) and who did not attrite from the sample in any of the 12 waves. Welfare leavers are those who are observed to be on welfare for at least 4 months out of a 6-month period (the 6-month period on welfare before exit) followed by an 8-month period with at least 4 months off welfare. Some leavers return to welfare in later periods and they are included in the post-exit months.

in the last six months on welfare. The real earnings of those who are employed continue to rise after leaving. With the exception of one cohort, the initial level of earnings in the first six months off welfare ranges from $849 a month to $977. At the start of the second year earnings range from $1,028 to $1,179 and they rise above that in subsequent periods. (All earnings are in 2001 dollars.)

These results suggest that the changes in employment and earnings of welfare leavers reported in many welfare leaver studies understate the true gains from welfare reform. It is apparent that in the 6-month period before leaving welfare, employment and earnings rise, reflecting work requirements that may precipitate the exit and/or normal preparation for exit. But the typical leaver study uses the last month or two while still receiving benefits as the benchmark for measuring the employment and earnings gains from leaving welfare. However, some of those gains had already begun to be realized in the final months on welfare.

	Months After Exit					
First 6 months	*7–12 months*	*13–18 months*	*19–24 months*	*25–30 months*	*31–36 months*	*37–42 months*
62.9	62.6	67.2	64.3	68.9	72.0	72.8
67.9	62.6	59.7	62.3	67.1	74.3	
60.7	59.7	63.9	60.3	64.9		
57.1	56.7	52.9	62.2			
67.8	66.9	68.6				
64.6	67.2					
68.3						
21.2	22.7	21.3	22.8	21.8	23.1	21.5
20.5	22.4	22.8	23.6	22.5	21.0	
20.9	23.7	22.6	23.3	22.7		
20.3	21.9	22.2	20.8			
20.6	21.6	21.0				
22.0	21.0					
19.7						
977	1,118	1,179	1,213	1,191	1,217	1,231
849	991	1,061	1,071	988	1,036	
898	1,138	1,085	1,233	1,249		
778	891	1,032	1,088			
927	978	1,028				
969	928					
857						

Will the Wage Rates of Welfare Leavers Rise with Experience?

One fundamental finding of the labor economics literature is that wages rise with work experience because of the increased skill accumulation that accompanies work.[23] It is therefore expected that if welfare reform is sustained, those who have left welfare will continue to gain work experience and their wages will continue to rise. Of course no long-term data are yet available that would enable us to examine lifetime patterns of work and earnings of women who left welfare early in the TANF era. But to obtain an insight into the possibilities, we have analyzed data from the National Longitudinal Survey of Youth (NLSY79) pertaining to a cohort of women who were first interviewed in 1979 when they were ages 14–22 and were subsequently interviewed annually (biennially since the mid 90's).

In 1998 these women were ages 33–41. Among women with children who were employed that year, 34% had been on welfare for one or more years since 1978. We use regression analysis to estimate the effects of years of work experience and other characteristics on the wage rates of mothers who had been on welfare but were no longer on in 1998. Our findings (detailed in Appendix Tables B-1 and B-2) show that holding schooling, AFQT score (a measure of math and reading ability) and other relevant variables constant, work experience has a strong

positive effect on the wage rates of former welfare recipients. We report our results separately for early leavers (those who left welfare before 1994) and recent leavers (those who left in the period 1994–1998).

Among early leavers, each additional year worked in the period 1994–1998 increased their real hourly wage by 2.6%, and each additional year of tenure on their current job raised the wage by 1.8%. For each additional year worked prior to 1994 the wage rose by 2.2% (Appendix Table B-2).

Women who were recent leavers have weaker work related skills than those who left prior to 1994. For example, they worked fewer years over their lifetimes and had generally less schooling and weaker academic skills. However, even this group experienced significantly higher pay as work experience increased. Thus, each additional year worked between 1994 and 1998 was associated with an increase in hourly pay of 2.2% and an additional year of job tenure increased pay by another 1%. This finding gives us reason to believe that welfare leavers will improve their earnings and income over time.

IV. CHANGES IN TOTAL INCOME AND ITS COMPONENTS

We have shown that single mothers have increased their earnings as they have moved off welfare. However, the economic resources that affect well being include other sources of cash and non-cash income, as well as the contributions of other members of the household. Moreover, the total value of these resources should take account of net taxes paid. In this section, we examine the change in total income and its components during the welfare revolution. As before, we use the large CPS samples for a comprehensive picture of income and its detailed components for all single mothers as well as for subgroups of interest, and then turn to SIPP to obtain more direct data on changes in the incomes of welfare leavers. These data show that

Table 7
Changes in the Receipt, Amount, and Share of Annual Own Cash Income and Its Components: Single Mothers, Ages 18–44 (income in 2001 dollars)

	Percent receiving income from source				Mean amount received by recipients			
Income Source:	**1993**	**1995**	**1997**	**2000**	**1993**	**1995**	**1997**	**2000**
Earnings	68.7	72.8	77.9	83.6	17,556	18,577	18,482	21,450
Welfare	35.1	28.8	22.6	12.9	4,565	4,450	3,788	3,606
SSI/Soc. Sec.	9.3	10.1	8.8	7.6	7,299	7,225	8,108	7,690
Child support [1]	29.6	31.7	29.7	32.3	4,182	4,033	4,064	4,750
Other cash inc.	40.5	40.7	37.0	38.5	2,639	2,511	2,873	2,325
Any cash inc.	***96.5***	***95.5***	***95.2***	***95.0***	***17,247***	***18,663***	***19,163***	***22,565***
EITC	48.8	53.5	59.3	62.1	1,107	1,830	2,043	2,044
Any cash plus EITC	***96.5***	***95.5***	***95.2***	***95.0***	***17,801***	***19,695***	***20,429***	***23,906***

	Mean cash income including those with zero income from source				Percent share of aggregate cash income from source			
Income Source:	**1993**	**1995**	**1997**	**2000**	**1993**	**1995**	**1997**	**2000**
Earnings	12,055	13,523	14,407	17,940	70.2	71.9	74.1	79.0
Welfare	1,607	1,266	851	464	9.3	6.7	4.4	2.0
SSI/Soc. Sec.	681	734	713	584	4.0	3.9	3.7	2.6
Child support [1]	1,234	1,277	1,202	1,535	7.2	6.8	6.2	6.8
Other cash inc.	1,075	1,021	1,064	896	6.2	5.4	5.5	4.0
Subtotal	***16,641***	***17,833***	***18,237***	***21,436***	**96.9**	**94.8**	**93.8**	**94.4**
EITC	543	979	1,213	1,269	**3.1**	**5.2**	**6.2**	**5.6**
Total with EITC	***17,184***	***18,812***	***19,450***	***22,705***	**100.0**	**100.0**	**100.0**	**100.0**

[1] Item includes alimony.

Source: Calculated from micro data files, March CPS.

virtually all single women, even those in the lowest income quintile and those with the least education, experienced significant income gains.

Two points stand out in Table 7, which describes changes in the components of own cash income for all single mothers from 1993 to 2000. One is that the composition of income changed as the percentage of mothers with welfare income declined and the percentage with income from earnings increased. As a result of this change, the share of cash income from welfare dropped from around 9% to 2% from 1993 to 2000 and the share from earnings rose from roughly 70% to 79%. Adding the change in income from the EITC, which may be viewed as an earnings supplement, increases the share of earnings by more than 5 percentage points in each year after 1993. By the year 2000, earnings plus the EITC made up nearly 85% of a single mother's own cash income (including the EITC).

The second important point is that the total cash income of single mothers increased by 32% after adjusting for inflation. On average, the gain in earnings of almost $6,000 far outweighed the loss of $1,143 in welfare benefits, and the increase in the EITC plus a small gain in child support further enlarged the offset.

Even more striking shifts in the composition of income occurred among single mothers who are high school dropouts (Table 8). Between 1993 and 2000 the proportion of this group who received welfare benefits fell from just over 56% to less than 26% and the share of their cash income derived from benefits plummeted from approximately 30% to only slightly more than 8%. At the same time, the percent with earnings escalated from 44% to 68% and the share of cash income from earnings rose impressively – from about 47% to 67%, not counting the EITC, and from approximately 52% to 78%, counting the EITC. The average gain in earnings of more than $4,000 for women at the high school dropout level more than offset the $1,641 loss in their welfare benefits, and increases in income from the EITC and child support added to the gain.

Table 8
Changes in the Receipt, Amount, and Share of Own Cash Income and Its Components: High School Dropouts (single mothers, income in 2001 dollars)

	Percent receiving income from source				Mean amount received by recipients			
Income Source:	**1993**	**1995**	**1997**	**2000**	**1993**	**1995**	**1997**	**2000**
Earnings	44.1	49.7	55.8	67.9	9,395	9,842	9,267	12,048
Welfare	56.3	47.8	41.6	25.9	4,714	4,714	4,203	3,892
SSI/Soc. Sec.	12.9	14.3	12.1	13.5	6,299	6,895	7,640	5,586
Child support [1]	17.2	18.2	18.0	18.8	1,926	2,522	2,649	3,029
Other cash inc.	16.0	15.9	16.1	18.2	2,713	1,756	2,383	1,571
Any cash inc.	***92.9***	***91.2***	***89.4***	***89.6***	***9,023***	***9,714***	***9,736***	***12,083***
EITC	35.9	42.7	48.4	60.2	1,149	2,032	2,256	2,229
Any cash plus EITC	***92.9***	***91.2***	***89.4***	***89.6***	***9,459***	***10,672***	***10,959***	***13,581***

	Mean cash income including those with zero income from source				Percent share of aggregate cash income from source			
Income Source:	**1993**	**1995**	**1997**	**2000**	**1993**	**1995**	**1997**	**2000**
Earnings	4,139	4,894	5,171	8,186	47.1	50.3	52.7	67.3
Welfare	2,649	2,256	1,745	1,008	30.2	23.1	17.9	8.3
SSI/Soc. Sec.	819	979	926	755	9.3	10.1	9.5	6.2
Child support [1]	330	458	479	568	3.8	4.7	4.9	4.7
Other cash inc.	436	277	383	286	4.9	2.9	3.9	2.4
Subtotal	***8,374***	***8,863***	***8,704***	***10,825***	**95.3**	**91.1**	**88.9**	**89.0**
EITC	415	872	1,096	1,343	4.7	8.9	11.1	11.0
Total with EITC	***8,789***	***9,736***	***9,789***	***12,167***	**100.0**	**100.0**	**100.0**	**100.0**

[1] Item includes alimony.

Source: Calculated from micro data files, March CPS.

Overall, in the year 2000 the average single mother's own cash income reached $22,705 and the own cash income of mothers who are high school dropouts reached $12,167. However, as we pointed out in our discussion of poverty levels, an individual's cash income is often only a component of the real income available to her and her children. Tables 9 and 10 display single mothers' full household income and its components, which in addition to the mother's own cash income include cash income from a male partner or other household member and non-cash income. Taxes paid reduce household income, and their effect is shown as well. Table 9 provides this information for all single mothers; Table 10, for single mothers who are high school dropouts. The following observations are of particular interest:

- The total cash and non-cash household income of all single mothers increased by 28% from 1993 to 2000 before deducting taxes and by 26% after taxes. The household income of high school dropouts made similar gains.
- Non-cash income and income from other household members significantly supplement the cash income of single mothers. However, single mothers' cash incomes rose as a share of total household income between 1993 and 2000, despite their loss of welfare benefits.

Table 9
Full Household Income and Its Major Components: All Single Mothers, 18–44 (income in 2001 Dollars)

	Percent receiving income from source				Mean amount received by recipients			
	1993	1995	1997	2000	1993	1995	1997	2000
Mother's own cash income plus EITC	96.5	95.5	95.0	95.0	17,811	19,691	20,466	23,906
Cash income from partner and/or other household members	44.4	48.5	47.0	48.6	24,813	26,378	26,745	31,226
Household non-cash income [1]	94.2	94.0	92.4	88.9	4,525	4,834	4,266	4,180
Household pre-tax cash and non-cash income plus EITC	99.7	99.8	99.7	99.8	32,559	36,207	36,082	41,686
Total household after-tax cash and non-cash income [2]	99.7	99.8	99.7	99.8	28,916	31,966	31,650	36,233
	Mean income including those with zero income from source				**Percent share of aggregate cash and non-cash income from source**			
	1993	1995	1997	2000	1993	1995	1997	2000
Mother's own cash income plus EITC	17,183	18,808	19,448	22,705	52.9	52.0	54.1	54.6
Cash income from partner and/or other household members	11,017	12,799	12,575	15,173	33.9	35.4	35.0	36.5
Household non-cash income [1]	4,264	4,542	3,944	3,718	13.1	12.6	11.0	8.9
Household pre-tax cash and non-cash income plus EITC	32,464	36,149	35,966	41,596	100.0	100.0	100.0	100.0
Total household after-tax cash and non-cash income [2]	28,794	31,915	31,529	36,147	—	—	—	—

[1] Non-cash income is based on Census Bureau valuations provided in the CPS of the following: employer contribution for health insurance, market value of housing subsidy, market value of food stamps, market value of school lunch, fungible value of Medicare, fungible value of Medicaid, and the amount of energy assistance.
[2] Taxes paid include federal income tax, state income tax and Social Security payroll tax. We use the estimates provided in the CPS.

Source: Calculated from micro data files, March CPS.

- Non-cash benefits accounted for a declining share of total household income, as one would expect to happen when cash incomes rise. Among high school dropouts, for whom non-cash benefits had been a particularly large component of total income, the non-cash share declined from about 20% to less than 13%. That is a larger decline than for all single mothers.
- Although total household income rose considerably over the period as a whole, it declined slightly between 1995 and 1997 for all single mothers and more noticeably (a pre-tax decline of 14%) for the households of high school dropouts. About 79% of the decline for the high school dropout group is attributable to a reduction in income from other household members and 23% is due to a decline in non-cash income. The decline is not due to changes in the earnings or other cash income of single mothers as their income actually rose somewhat in 1997.

Table 10
Full Household Income and Its Major Components: High School Dropouts (single mothers, income in 2001 dollars)

	Percent receiving income from source				Mean amount received by recipients			
	1993	1995	1997	2000	1993	1995	1997	2000
Mother's own cash income plus EITC	92.9	91.2	89.4	89.6	9,461	10,669	10,955	13,581
Cash income from partner and/or other household members	47.1	53.1	50.0	53.0	19,429	22,915	18,320	24,735
Household non-cash income [1]	95.2	96.0	92.2	88.7	4,815	5,234	4,516	4,181
Household pre-tax cash and non-cash income plus EITC	99.4	100.0	99.8	99.8	22,652	26,925	23,162	29,037
Total household after-tax cash and non-cash income [2]	99.4	100.0	99.8	99.8	21,061	24,651	21,599	26,343

	Mean income including those with zero income from source				Percent share of aggregate cash and non-cash income from source			
	1993	1995	1997	2000	1993	1995	1997	2000
Mother's own cash income plus EITC	8,788	9,730	9,793	12,167	39.0	36.2	42.4	42.0
Cash income from partner and/or other household members	9,142	12,160	9,155	13,117	40.6	45.2	39.6	45.2
Household non-cash income [1]	4,582	5,026	4,162	3,707	20.4	18.7	18.0	12.8
Household pre-tax cash and non-cash income plus EITC	22,511	26,916	23,110	28,991	100.0	100.0	100.0	100.0
Total household after-tax cash and non-cash income [2]	20,929	24,643	21,551	26,300	—	—	—	—

[1] Non-cash income is based on Census Bureau valuations provided in the CPS of the following: employer contribution for health insurance, market value of housing subsidy, market value of food stamps, market value of school lunch, fungible value of Medicare, fungible value of Medicaid, and the amount of energy assistance.
[2] Taxes paid include federal income tax, state income tax and Social Security payroll tax. We use the estimates provided in the CPS.

Source: Calculated from micro data files, March CPS.

Some welfare experts have argued that while single mothers as a whole improved their economic status during the 1990s, the poorest women among them did not. Table 11 addresses this issue by showing how the level and key components of own cash income have changed over the period 1993–2000 for single mothers in different income quintiles. The lowest quintile is a case apart and we will return to it shortly.[24] From the second to the highest quintile, all experienced a significant rise in income. However, the greatest income gains were made in the second and third quintiles, where welfare participation was initially very high and work participation low. After 1994, these groups reduced their reliance on welfare and increased their work participation, with the greatest changes occurring after 1996. About 64% of single mothers in the second quintile were on welfare in 1994. That figure declined to nearly 56% in 1996 and dropped to 23% in 2000, while work participation soared and the annual earnings of those who worked also increased. As a result, their total own cash incomes increased by almost 30% between 1996 and 2000.

Analyzing what has happened to the lowest quintile is complicated, and we provide some additional information in Table 11 to help interpret the patterns. Because we rank single mothers by their own cash income, all of those reporting zero or negative income are automatically in the lowest quintile and they

Table 11
Own Cash Income and Its Major Components by Income Quintile for Single Mothers, 18–44 (income in 2001 dollars)

	1993		1994		1995	
	% with Item	Mean Income from Item	% with Item	Mean Income from Item	% with Item	Mean Income from Item
Lowest quintile						
Earnings	34.7	1,790	36.8	2,008	34.7	2,127
Welfare benefits	53.0	2,860	45.0	2,837	41.6	2,574
with Positive Income	82.9	2,982	78.1	3,129	77.6	2,948
with Negative Income	0.2	-2,367	0.5	-1,517	0.0	0
with ZERO Income	16.9	0	21.4	0	22.4	0
Total Income including zero & neg	100.0	2,469	100.0	2,436	100.0	2,287
Second quintile						
Earnings	44.9	4,250	49.5	5,004	55.2	4,866
Welfare benefits	68.3	5,301	63.9	5,000	58.8	4,933
Total Income	100.0	6,999	100.0	7,222	100.0	7,294
Third quintile						
Earnings	73.9	9,402	78.2	9,765	78.0	10,371
Welfare benefits	41.2	5,588	40.0	5,477	35.5	5,466
Total Income	100.0	11,832	100.0	12,451	100.0	12,679
Fourth quintile						
Earnings	93.3	17,706	94.8	17,458	96.1	17,967
Welfare benefits	11.2	4,569	12.9	4,857	9.6	4,840
Total Income	100.0	20,300	100.0	21,038	100.0	21,172
Highest quintile						
Earnings	97.1	35,279	98.0	36,894	97.8	37,533
Welfare benefits	2.5	5,184	2.2	7,721	1.9	6,740
Total Income	100.0	41,666	100.0	43,025	100.0	43,762

Note: Calculated from Microdata files, March CPS. Quintiles are based on the quintile distribution of single mothers' own cash income. Income is the average within each quintile.

account for a significant share of that quintile. The proportion reporting zero income averaged 22.8% of the entire quintile over the years 1993–2000 and the level is somewhat higher in the period 1997–2000 than it was before. Zero cash income, however, does not necessarily mean zero access to resources. About 95% of single mothers with no cash income of their own lived in families and households with income. Although the poverty rates of their households were high, they declined significantly between 1995 and 2001. (See Appendix Table C-2.)

The percentage of single mothers in the lowest quintile reporting any earnings is low – averaging 37% before 1997 and rising only to 42.7% in 2000. The annual earnings of those who worked are also extremely low, although they rose from $2,038 in 1998 to $2,869 in 2000. Yet the proportion on welfare is considerably below that of the second income quintile in the pre-reform years and only comes closer to the second quintile after 1996 because the welfare participation rate of the second quintile falls much more sharply. The size of the welfare benefit received by welfare recipients in the lowest quintile is also low – considerably below that of recipients in other quintiles.

1996		1997		1998		1999		2000	
% with Item	Mean Income from Item	% with Item	Mean Income from Item	% with Item	Mean Income from Item	% with Item	Mean Income from Item	% with Item	Mean Income from Item
39.2	2,162	40.2	2,078	44.7	2,038	45.3	2,336	42.7	2,869
40.7	2,731	35.5	2,621	30.0	2,370	25.9	2,570	26.5	2,535
79.0	3,062	75.4	2,969	71.9	2,850	75.8	3,004	74.5	3,400
0.0	0	0.8	-1,780	0.3	-1,786	0.1	-6,217	0.1	-3,660
21.0	0	23.8	0	27.7	0	24.0	0	25.4	0
100.0	2,419	100.0	2,225	100.0	2,043	100.0	2,270	100.0	2,532
57.0	5,060	67.3	5,728	70.5	6,309	77.8	7,151	82.0	7,893
56.4	4,797	45.1	4,471	42.4	3,874	32.4	3,813	23.0	3,817
100.0	7,385	100.0	7,673	100.0	8,214	100.0	8,782	100.0	9,531
86.8	10,669	88.8	11,019	92.9	12,513	93.8	13,772	93.7	14,219
26.7	4,254	24.3	4,277	17.1	4,554	13.7	3,635	10.7	4,558
100.0	13,031	100.0	13,420	100.0	14,705	100.0	15,732	100.0	16,235
96.0	18,686	95.7	19,201	97.6	20,399	97.6	21,633	99.0	22,540
9.3	3,537	7.0	3,564	5.6	4,913	4.8	4,378	4.4	6,700
100.0	21,504	100.0	21,920	100.0	23,489	100.0	24,443	100.0	25,127
98.4	37,001	97.9	39,646	98.7	40,155	98.8	43,396	98.9	44,657
2.4	5,339	1.5	4,296	1.9	3,955	1.1	5,137	1.3	2,904
100.0	43,015	100.0	45,723	100.0	46,336	100.0	50,961	100.0	51,397

Given the high percentage with no reported income and the low income received from either work or welfare, it is a foregone conclusion that the lowest quintile of single mothers would have unusually low cash income of their own. It is much more difficult to determine what these data mean. The extremes of the income distribution are known to be affected by transitory income – temporarily high or low income. In addition, the CPS is known to underreport income, and particularly income from welfare. The low incidence and level of welfare income reported for these women is inconsistent with their low reported earnings and could reflect underreporting of one or the other. However, there are other factors to consider.

The characteristics of women in the lowest quintile suggest that for some, extremely low cash income may be a transitional phenomenon. As shown in Appendix Table C-3, a large proportion are between the ages of 18–24, and many live in extended families. As we show below, the combined cash and non-cash incomes of their family and household members are sufficient to raise them, on average, up to or beyond the poverty threshold. The lowest income quintile likely contains families and individuals in unfortunate situations. However, it is unlikely that welfare reform is a major cause of these misfortunes.

To obtain a more complete picture of the resources available to single mothers at different points in the income distribution and in different population subgroups, we again calculate their full household income, a measure that includes cash and non-cash sources of income of all household members and nets out taxes. In addition, we adjust for differences in household size and provide a benchmark of comparison by showing the ratio of household income to the poverty threshold (Table 12).

Table 12
The Mean Ratio of HOUSEHOLD Post-Tax Cash and Non-Cash Income to the Poverty Threshold in Single Mother Households for Different Subgroups of Mothers

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
All single mother households	1.79	1.84	1.79	1.80	1.77	1.74	1.84	1.92	1.90	1.92	1.99	2.14	2.20	2.15
By Quintile: [1]														
Lowest quintile	0.97	0.93	1.00	0.93	0.94	0.91	0.99	1.04	1.10	0.99	1.09	1.15	1.12	1.08
Second quintile	1.07	1.12	1.11	1.09	1.05	1.11	1.15	1.27	1.14	1.29	1.23	1.31	1.50	1.47
Third quintile	1.51	1.52	1.47	1.47	1.52	1.45	1.55	1.60	1.69	1.67	1.70	1.89	1.96	2.02
Fourth quintile	2.13	2.17	2.05	2.19	2.09	2.06	2.20	2.13	2.20	2.23	2.32	2.42	2.46	2.54
Highest quintile	3.31	3.38	3.27	3.26	3.24	3.18	3.24	3.44	3.29	3.40	3.50	3.83	3.83	3.81
By Mother's Education														
<HS	1.11	1.17	1.22	1.15	1.14	1.11	1.14	1.30	1.22	1.17	1.24	1.34	1.44	1.39
=HS	1.73	1.81	1.71	1.74	1.71	1.66	1.77	1.83	1.80	1.80	1.86	1.99	2.02	1.94
>HS	2.42	2.38	2.35	2.38	2.26	2.23	2.30	2.34	2.37	2.42	2.47	2.69	2.72	2.69
By Mother's Race														
Black	1.48	1.54	1.47	1.43	1.43	1.37	1.54	1.55	1.56	1.62	1.67	1.81	1.85	1.81
Hispanic	1.42	1.45	1.47	1.47	1.46	1.41	1.52	1.45	1.48	1.54	1.56	1.71	1.77	1.87
White	2.08	2.13	2.06	2.12	2.07	2.07	2.10	2.30	2.24	2.23	2.34	2.49	2.56	2.48
By Living Arrangement														
Independent families	1.49	1.54	1.51	1.51	1.48	1.46	1.58	1.66	1.63	1.65	1.70	1.81	1.91	1.86
Cohabiting families	2.25	2.65	2.42	2.30	2.26	2.09	2.21	2.36	2.28	2.32	2.49	2.61	2.53	2.44
Extended families	2.18	2.19	2.12	2.13	2.10	2.11	2.11	2.13	2.18	2.20	2.29	2.46	2.48	2.49
Unrelated families	2.37	2.31	2.21	2.40	2.30	2.25	2.40	2.64	2.63	2.33	2.58	2.76	2.93	2.76

[1] Quintile determined by single mother's own cash income. Income is measured as the mean within quintiles.

The income-to-poverty ratios rise in all income quintiles in the 1990s. The full household income of the lowest quintile fluctuates, but was generally below or just at the poverty threshold up to 1995 and averaged 9% above the threshold over the years 1996–2001. The second lowest quintile, which was initially the most dependent on welfare, averaged about 10% above poverty before 1995, but rose to 47% above the poverty level in 2001.

Income-to-poverty ratios are also used in Table 12 to compare the full household incomes of single mothers grouped by education, race and living arrangements. Independent families, defined as those consisting only of the mother and her children, have lower incomes relative to the poverty threshold than single mothers who live with partners or in extended family or household arrangements. However, their income/poverty ratios rose more than those of any other group between 1996 and 2000, and that would have been based entirely on their own earnings and other sources of income.

Changes in Household Cash and Non-Cash Income in the SIPP Panel

We turn once more to the SIPP panel data to follow directly the changes in total household income for women who left welfare just before and during the period of welfare reform. Table 13 shows changes in total monthly household cash and non-cash income. The contents of the SIPP income measure are somewhat less complete than the CPS measure because the available SIPP data did not include information to calculate cash equivalents for certain non-cash benefits such as medical benefits or for estimating taxes. Cash equivalents are given for food stamps, WIC and energy assistance and we include an estimate of the value of the EITC received.

In general, the welfare leavers have a higher level of household income after leaving welfare than they did before, and the more time we have to observe them the better off they are. Panel B provides income/poverty ratios which indicate a similar pattern.

Table 13
Tracking Monthly Household Cash and Non-Cash Income (in 2001 dollars) and Income/Poverty Ratios of Cohorts of Welfare Leavers, Using SIPP Panel Data in the Months Before and After Leaving Welfare, 1996–1999

			Months After Exit						
	7–12 months before exit	Six-month period on welfare before exit	First 6 months	7–12 months	13–18 months	19–24 months	25–30 months	31–36 months	37–42 months
A: Mean monthly household cash plus non-cash income [1]									
Cohort leaving welfare after:									
first 6 mths in 1996		2,305	2,394	2,411	2,451	2,493	2,873	2,982	3,331
second 6 mths in 1996	1,867	2,011	2,079	2,159	2,482	2,496	2,246	2,472	
first 6 mths in 1997	2,007	2,055	2,074	2,515	2,573	2,693	2,640		
second 6 mths in 1997	1,732	2,126	2,029	1,971	2,047	2,493			
first 6 mths in 1998	2,069	2,348	2,531	2,426	2,501				
second 6 mths in 1998	1,628	1,745	1,784	1,924					
first 6 mths in 1999	2,223	2,348	2,309						
B: Mean ratio of household cash and certain non-cash income to the poverty threshold									
Cohort leaving welfare after:									
first 6 mths in 1996		1.40	1.53	1.54	1.58	1.62	1.79	1.82	1.98
second 6 mths in 1996	1.12	1.20	1.30	1.38	1.50	1.52	1.42	1.57	
first 6 mths in 1997	1.24	1.28	1.32	1.58	1.61	1.70	1.65		
second 6 mths in 1997	1.11	1.32	1.28	1.27	1.33	1.62			
first 6 mths in 1998	1.26	1.42	1.52	1.49	1.53				
second 6 mths in 1998	1.03	1.10	1.12	1.22					
first 6 mths in 1999	1.35	1.43	1.40						

Note: Population restricted to women ages 20–55 (last panel interview) with children under age 18 (in 6-month period before exit) and who did not attrite from the sample in any of the 12 waves. Welfare leavers are those who are observed to be on welfare for at least 4 months out of a 6-month period (the 6-month period on welfare before exit) followed by an 8-month period with at least 4 months off welfare. Some leavers return to welfare and they are included in the post-exit months.

1) Total household cash income plus the value of non-cash benefits and including our estimate of the EITC. Non-cash income aggregates dollar values for food stamps, WIC, and energy assistance. The income of a male partner, if present, is included in household income. Information was not available on taxes paid and is excluded.

Another common claim is that women who leave welfare are not better off economically because, while their cash income may increase, they lose access to health insurance because they no longer qualify for Medicaid and their new employers do not offer private insurance. Although SIPP does not estimate cash equivalents for medical benefits, it does provide information on the receipt of health insurance benefits, a potentially important element of real income. Table 14 follows the seven cohorts of welfare leavers, this time showing the percent with any health insurance as well as the percent with Medicaid and the percent with private health insurance.

Table 14
Tracking the Health Insurance Status of Cohorts of Welfare Leavers Using SIPP Panel Data in the Months Before and After Leaving Welfare, 1996–1999

	Six-month period on welfare before exit	Months After Exit						
		First 6 months	7–12 months	13–18 months	19–24 months	25–30 months	31–36 months	37–42 months
A: Percent with any health insurance								
Cohort leaving welfare after:								
first 6 mths in 1996	100.0	91.9	81.6	80.0	80.2	75.1	72.9	76.3
second 6 mths in 1996	98.8	87.0	85.1	81.5	78.9	86.7	86.0	
first 6 mths in 1997	98.6	89.1	79.9	79.5	80.2	81.9		
second 6 mths in 1997	98.4	81.5	83.7	80.5	74.4			
first 6 mths in 1998	99.0	85.2	79.3	78.8				
second 6 mths in 1998	97.8	88.5	88.7					
first 6 mths in 1999	98.1	89.1						
B: Percent with Medicare or Medicaid								
Cohort leaving welfare after:								
first 6 mths in 1996	100.0	83.3	61.3	55.3	44.3	42.5	41.5	40.4
second 6 mths in 1996	97.7	77.7	73.5	58.3	54.0	56.0	53.3	
first 6 mths in 1997	97.8	81.4	62.4	56.9	55.6	54.9		
second 6 mths in 1997	98.4	73.9	68.2	59.5	54.3			
first 6 mths in 1998	99.0	78.1	64.8	63.6				
second 6 mths in 1998	97.8	83.3	76.6					
first 6 mths in 1999	95.9	83.8						
C: Percent with private health insurance								
Cohort leaving welfare after:								
first 6 mths in 1996	14.2	23.0	31.4	35.6	40.7	41.4	37.1	42.3
second 6 mths in 1996	12.0	18.9	24.4	32.9	33.9	40.8	37.8	
first 6 mths in 1997	14.6	22.9	24.2	32.8	35.6	37.5		
second 6 mths in 1997	14.7	19.9	22.7	21.6	29.7			
first 6 mths in 1998	17.4	23.2	28.2	30.8				
second 6 mths in 1998	7.5	12.7	20.0					
first 6 mths in 1999	17.0	19.6						

Note: Population restricted to women ages 20–55 (last panel interview) with children under age 18 (in 6-month period before exit) and who did not attrite from the sample in any of the 12 waves. Welfare leavers are those who are observed to be on welfare for at least 4 months out of a 6-month period (the 6-month period on welfare before exit) followed by an 8-month period with at least 4 months off welfare. Some leavers return to welfare in later periods and they are included in the post-exit months.

The SIPP data show that Medicaid covers nearly all single mothers in each cohort when they are on welfare and most appear to have retained this coverage for six months to a year after leaving. After that, Medicaid coverage slipped down to about 55% and less than that for the first group of leavers. However, an increasing percentage of mothers acquired private health insurance as their employment participation rose. As a result, the percentage of mothers with any insurance coverage remained close to 80% in the third year after leaving welfare despite the reduction in Medicaid. Of course, the picture may have changed since 1999 when the SIPP panel ended. Medicaid coverage of single mothers likely rose because several states extended coverage to parents at income levels above the poverty line after 1999.[25] But it is also possible that private coverage declined, perhaps partly because of the Medicaid pick-up and partly because of rising premium costs in recent years.

V. CONCLUDING COMMENTS

The welfare revolution that began as experiments in a few states in the first half of the 1990s and went nationwide at the end of 1996 has unquestionably changed the lives of large numbers of women and their children. Both the exodus from welfare and the rise in work participation of single mothers reflect changes in behavior in response to changes in incentives ushered in by welfare reform. Before the reform, a single mother could count on receiving a low, but guaranteed, income from cash and non-cash benefits until her youngest child reached the age of 18. In 1998, about 20% of all women in their thirties had been on welfare at some time in their lives.[26] Among those ever on welfare, 37% had collected benefits for more than five years, and 15% for more than ten years.

The 5-year time limit and work requirements that are the key provisions of the 1996 reform radically altered the terms for welfare receipt. Moreover, the large increase in the EITC prior to 1996 also made work more attractive by providing a significant supplement to the earnings of many low-income parents. Those most immediately and directly affected by these changes were single mothers already on welfare and single mothers not yet on, but eligible, at least under the old rules. Faced with a balance scale that had tipped in favor of self-support, a majority of single mothers on welfare chose to leave welfare (or not to go on in the first place). It is their progress that we have recorded in this report.

The outcomes for these women have been far better than anyone expected. Increases in employment and earnings, enhanced by the EITC, more than offset declining welfare benefits among single mothers. And as incomes have risen, poverty declined significantly for single mothers and their families. As both the charts and our regression analysis in Section II showed, these outcomes are largely due to welfare reform, rather than to other factors such as the booming economy of the late 1990s.

Yet the earnings and incomes of women who leave welfare remain below those of other women who have never been on welfare. There are many reasons why this is the case. However, we believe that part of the differential is attributable to disincentives embedded in the old welfare system. Most directly, welfare has been a deterrent to work, particularly the continuous attachment to employment that builds skills. But the expectation of long-term welfare support also may have influenced other human capital investments typically made at a young age, such as the decision to stay in school, and it may have contributed to early childbearing, which can be an impediment to work and skill development.

The potential for future gains in income for single mothers depends to a large extent on increases in their wage rates, the building blocks of earnings. We estimate that differences in accumulated work experience can account for approximately one-third of the pay gap between former welfare recipients and women who have never been on welfare.[27] Thus, the large increase in the work participation of single mothers in recent years bodes well for further narrowing of the wage gap.[28] But it will be more difficult to narrow the remaining differential that comes from background factors such as educational deficiencies and different fertility patterns.

The remarkable adaptation that single mothers have already made is grounds for optimism. However, welfare reform also holds the promise of ultimately redirecting the incentives of young women whose family backgrounds in the past would have predisposed them towards early childbearing, early school leaving and welfare dependence. Welfare reform has made that self-destructive path more difficult to take.

ENDNOTES

1. See June E. O'Neill and M. Anne Hill, *Gaining Ground? Measuring the Impact of Welfare Reform on Welfare and Work*, Manhattan Institute Civic Report No. 17, July 2001.

2. That gain is less than the gain in single mothers' own cash incomes because non-cash benefits declined slightly and the incomes of other household members did not rise as fast as those of single mothers.

3. The poverty rate for single mothers in 1996 noted here (40.1%) and throughout the report differs somewhat from the rate shown in Figure 1 (41.9%) because it is restricted to families with a single mother, ages 18–44, living with her *own* children. Figure 1 includes all female headed families with any *related* children but no husband present. In addition, our definition of single mothers includes heads of subfamilies as well as heads of primary families as long as they are living with children of their own. The only annual poverty data available for early years refer to the broader category of female-headed families.

4. The proportion of single mothers living with a male partner increased from 7.6% in 1995 to 11.3% in 2001. (See Appendix Table C-1 for the distribution of single mothers by living arrangements.) We identify single mothers with a male partner in the Current Population Survey as a single mother living with one adult male aged 18–60 and with no other adults present.

5. The maximum value of the EITC credit increased substantially over time, particularly for families with two children, for whom it rose by 130% in real terms from 1992 to 1996, reaching a level of $4,015 in 1996 (in 2001 dollars).

6. For valuing non-cash benefits we use the estimates of the Census Bureau provided in the Current Population Survey. Non-cash benefits include Food Stamps, Medicaid, Medicare, free and reduced-price lunches and rent subsidies. The Bureau estimates a "fungible" value for Medicaid and Medicare which assigns no value to these health benefits if family income is below the level they determine is needed to cover food and housing requirements. At incomes above that need standard, the fungible value is the difference between the market value of Medicaid (or Medicare) and the need standard. The Bureau gives cash equivalents for other non-cash benefits essentially based on estimated market value. Estimates are also given for the full cash value of health insurance supplements to wage and salary income provided by employers—a non-means tested part of compensation.

7. See the discussion below and Appendix B.

8. See O'Neill and Hill, *Gaining Ground*, op.cit.

9. The rise in poverty from 1995 to 1997 is pronounced only for white non-Hispanic women (Fig. 5).

10. The SIPP surveys are complex in their design. We use the panel first interviewed in April, 1996. Members of the panel are divided into four groups, each of which is interviewed in a different month in a four-month wave. (There are 12 waves, three a year.) But in each interview the panelists are asked to recall their incomes, employment and other information for each of the past four months. Thus the first group of the first wave, interviewed in April, 1996, was asked to report on each month, from December, 1995 through March, 1996. By the 12th and last wave of the survey there was a loss from the sample of approximately 30% of women who had children and were ages 16–50 in the first survey interview. Attrition reduced the size of the sample and imposed some distortion since certain groups were more likely to leave the survey than others. The Census has attempted to correct such bias by adjusting the population weights and we use that weighted data in our analysis.

11. For several reasons, we have broadened the number of months for defining welfare status beyond the usual one or two-month standard. One is that we are primarily interested in women with children who have had a real attachment to welfare, and who then actually leave the program. Welfare recipients can be reported off welfare for one or two months, however, due to an administrative problem, such as a temporary sanction or even a clerical error. In that case, their work participation may not change, particularly if they expect to go back on welfare quickly. Second, monthly changes cannot be accurately determined in SIPP because of what may be termed a "seam" problem. Panel members provide data for the past four months based on memory. When they can't recall monthly detail, they tend to report the same status

in all four months, whether for welfare receipt, employment or other items. Changes in reported status, therefore, tend to occur only at the next interview – i.e., at the seam. Our examination of the data suggests that the seam problem occurred frequently.

12. As noted, it is not uncommon for those who leave welfare to return, particularly in the first year after leaving, and then to leave again. We have not excluded returnees from the income analysis. Since their poverty rates are generally higher than those of leavers who do not return, their inclusion in the data raises the overall poverty rate for leavers. However, the proportion of leavers who are returnees declines with time. Few returnees are found on welfare in the last year observed among the 1996 cohort of leavers.

13. Based on cash income alone, the percent in poverty in the last six months before exiting welfare ranged from 58% to 74%. In most cases, poverty was already lower in the last months before leaving welfare than it had been earlier. As we show below, the work experience and incomes of women on welfare in recent years have increased in the last six months on welfare. This pattern likely reflects the effects of both the work requirements of welfare reform and the enhanced earnings disregards that in many states allow recipients to keep a larger portion of their benefits while they work, but only for a limited time.

14. Only one cohort experienced little or no immediate improvement – those leaving after the second half of 1997. But the poverty rate of that cohort had already declined in the last six months on welfare from an earlier, higher poverty rate. Moreover, this cohort, like the others, experienced additional declines in welfare as time went on.

15. In 1999, the CPS poverty rate for single mothers who were not on welfare was 26.3% based on cash income and 16.9% based on household cash and non-cash income post-tax (Figure 3). The poverty rate for SIPP leavers in their fourth year off welfare was 31.8% based cash income only and 19.2% on a household basis (Table 1).

16. See *Gaining Ground*, op.cit.

17. Between 1992 and 1996 the maximum annual EITC benefit for a single mother with two children increased from $1,747 to $4,015 (in constant 2001 dollars), a gain of 130%. The benefit for a single mother with one child increased by only 45%.

18. The basic data source for the regression analysis is the monthly Current Population Survey (CPS) micro-data files for the years 1984–2001, merged with data on the maximum EITC for one and two-child families, the maximum combined state benefit from AFDC/TANF and Food Stamps, hourly wage rates and unemployment rates by state, and the month of implementation of welfare waivers and TANF by state. The regression specifications are detailed in Appendix Table A.

19. Work participation is measured here as the percent currently employed, based on monthly reporting of employment status. For the presentation of results the data were averaged over six-month periods.

20. The regression analysis indicated a statistically significant positive effect of the EITC for women with two or more children, offset by a negative effect of the EITC for those with one child (see Appendix Table A). The net effect of the EITC on employment was smaller than we had anticipated. However, the EITC has a complicated structure that may discourage additional employment as earnings rise above particular levels.

21. In part this may reflect moving off welfare and on to work during a part of the year, since welfare receipt as measured in the CPS only refers to receipt at any time during the year. It also may reflect increased work in anticipation of leaving welfare as well as increases in earnings disregards that have occurred in several states.

22. Data from the National Longitudinal Survey of Youth, 1979 cohort (NLSY79), show that among a cohort of women ages 33–41 in 1998 who had ever been on welfare, 17% were high school dropouts.

23. There is a vast literature on this point. In particular see the fundamental works of Jacob Mincer: "Labor Force Participation of Married Women" in H.G. Lewis, ed., *Aspects of Labor Economics*, 1962, Cambridge: National Bureau of Economic Research (NBER); and *Schooling, Experience and Earnings*, 1974, NewYork: Columbia University Press for NBER.

24. Considerable attention was drawn to the finding of a decline in the income of single mother families in the lowest percentiles of the income distribution between 1995 and 1997 and that decline was attributed to the after-effects of welfare reform. (See Wendell Primus, L. Rawlings, K. Larin and K. Porter, *The Initial Impact of Welfare Reform on the Income of Single-Mother Families*, Center on Budget and Policy Priorities, Washington DC, August, 1999.) Our analysis suggests that reporting of income in the lowest quintile is unreliable and subject to random fluctuations. Moreover the change in income from 1995 to 1997 is not appropriate for evaluating welfare reform since in many states it had only been implemented for a portion of 1997. In any event, both the own cash income and total household incomes of the poorest quintile of single mothers increased between 1997 and 2000 and were higher in 2000 than they were in 1995.

25. While on welfare, mothers and their children are typically covered by Medicaid. However, an increasing proportion of families have maintained Medicaid coverage after leaving welfare through programs that provide transitional benefits to welfare leavers and through provisions that have allowed states to cover low-income families with no ties to welfare. The State Children's Health Insurance Program (SCHIP) provides federal matching funds to states and has given them the leeway to extend eligibility to families above the poverty line. Initially, states expanded coverage only for children. More recently many states have extended coverage to parents, although usually subject to stricter income limitations. See Matthew Broaddus, et al, *Expanding Family Coverage: States' Medicaid Eligibility Policies for Working Families in the Year 2000*, Center on Budget Policy and Priorities, February, 2002.

26. The statistics on welfare duration in this paragraph were calculated from the NLSY79 and refer to women who remained in the sample through 1998. Welfare use was reported each year for the prior year starting in 1978 when the women were ages 14–22. In years when the interview followed a skipped year information was obtained retrospectively for the past two years.

27. This estimate is based on regression analysis of data from the National Longitudinal Survey of Youth, 1979 cohort (NLSY79). See Appendix Tables D-1 and D-2 which provide details on differences in characteristics and the underlying regression results on which the estimate is based.

28. Additional analysis indicates that the returns to both general work experience and tenure are about the same for the two groups of women. Thus one can have greater confidence that narrowing the work experience gap will narrow the wage gap as well.

APPENDIX

Table A
Effects of Welfare Policy and Other Factors on the Work Participation of Single Mothers, 1984–2001

	Regression Results		Mean Characteristics
	coeff.	t-stat.	
Waiver	0.0037	0.72	8.03%
TANF	0.0398	7.00	24.16%
mother is:			
age 18–21	-0.1637	-33.54	8.30%
age 22–25	-0.0751	-17.99	13.73%
age 26–29	-0.0291	-7.71	16.34%
age 30–34	0.0041	1.27	22.95%
age 35–39	0.0102	3.31	22.43%
(age 40–44)			16.26%
mother's race is:			
hispanic	-0.0566	-16.50	11.65%
black, non-hispanic	-0.0748	-28.59	29.82%
other non-hispanic	-0.0981	-18.77	4.03%
(white)			(54.50%)
mother's education is:			
high school dropout	-0.2246	-89.62	23.13%
(high school)			(40.67%)
some college	0.0610	26.27	27.43%
college graduate	0.1563	43.88	8.72%
living in central city	-0.0372	-16.09	32.50%
never married	-0.0623	-26.38	37.17%
2 children or more	-0.1394	-23.54	50.85%
youngest child is:			
age 6 or younger	-0.1092	-32.41	54.49%
age 7–12	-0.0162	-5.27	29.57%
(age 13 or more)			15.94%
unemployment rate in state is:			
<4.0	0.0616	11.65	11.78%
4.0–5.0	0.0512	12.38	20.10%
5.0–6.0	0.0297	8.80	24.71%
6.0–7.0	0.0135	4.18	19.44%
(7.0 or more)			23.97%
hourly wage in state:			
for high school or less	0.0003	0.19	9.27
for some college or more	-0.0002	-0.15	12.25
other policy variables:			
AFDC & food stamps combined (state)	-0.0006	-1.38	98.07
EITC in 100's	-0.0017	-3.19	20.77
EITC in 100's x 2-child or more	0.0026	7.38	12.10
Sample Size	**221,531**		
Dependent Mean	**0.6522**		
Adj R-Sq	**0.1872**		

Note: The model includes the following variables, not separately shown: monthly dummy variables to adjust for seasonal fluctuation; a quadratic trend (trend, trend2); state fixed effects, and state and trend interactions. The data are from micro data files of the Outgoing Rotation Groups Current Population Survey, 1984–2001. Population refers to single mothers ages 18–44 with children under age 18. All monetary variables are indexed and vary by month or year as relevant. The value of the EITC is assigned as the maximum for a one-child family for women with one child, and the maximum for a 2-child family for those with two or more children.

Table B-1
Mean Characteristics in 1998 for Mothers in the NLSY79 Formerly on Welfare (all mothers and separately for early and recent welfare leavers)

	Combined Groups	Early Leavers [1]	Recent Leavers [2]
Age	36.62	36.74	36.42
% Lives in South	42.59	45.12	38.28
Number of Children			
% 1 Child	16.90	16.72	17.21
% 2 Children	32.71	34.84	29.08
(% 3 or more Children)	(50.39)	(48.44)	(53.71)
Education			
% High School Dropout	17.67	14.63	22.85
(% High School Graduate)	(49.95)	(49.65)	(50.45)
% Some College	27.55	29.44	24.33
% College Graduate	4.83	6.27	2.37
Race			
% Black non-Hispanic	51.70	49.83	54.90
% Hispanic	19.10	18.82	19.58
(% White non-Hispanic)	(29.20)	(31.36)	(25.52)
% Never Married	22.39	16.38	32.64
% Married	39.52	48.43	24.33
AFQT Percentile Score	23.44	25.32	19.42
% Part-time	18.88	16.72	22.55
Work Experience			
Years worked 1994–98	2.89	3.23	2.30
Years worked before 1994	5.76	6.90	3.82
Tenure on current job (yrs.)	2.65	3.44	1.29
% Recent Leavers	36.99	0.00	100.00
Years on Welfare	5.72	3.92	8.79

[1] Those who were on welfare before 1994 but not after.
[2] Those who received any welfare between 1994 and 1998 but were not on welfare in 1998.

Table B-2
Results of Wage Regressions: Log Hourly Wage in 1998, for Mothers in the NLSY79 Formerly on Welfare (all mothers and separately for early and recent welfare leavers)

	Combined Groups		Early Leavers [1]		Recent Leavers [2]	
	coeff.	t-stat.	coeff.	t-stat.	coeff.	t-stat.
Age	-0.0158	-2.56	-0.0186	-2.15	-0.0133	-1.58
Lives in South	-0.1334	-4.86	-0.1330	-3.54	-0.1327	-3.40
Number of Children						
1 Children	0.0773	2.13	0.0757	1.51	0.0823	1.64
2 Children	0.0097	0.34	0.2966	0.77	-0.0206	-0.49
Education						
High School Dropout	-0.0439	-1.20	-0.0102	-0.19	-0.0879	-1.85
Some College	0.1147	3.63	0.1238	2.91	0.0918	2.01
College Graduate	0.3318	5.26	0.3566	4.63	0.2485	2.02
Race						
non-Hispanic	0.0377	1.06	0.0014	0.03	0.1167	2.19
Hispanic	0.0263	0.66	-0.0267	-0.50	0.1407	2.41
Never Married	-0.0816	-2.33	-0.1136	-2.15	-0.0420	-0.95
Married	-0.0606	-2.06	-0.0720	-1.87	-0.0389	-0.85
AFQT Percentile						
AFQT 1_29	0.0020	1.01	0.0011	0.42	0.0045	1.47
AFQT 30_100	0.0028	3.15	0.0024	2.07	0.0040	2.85
Part-time	-0.0799	-2.47	-0.0725	-1.56	-0.0892	-2.10
Work Experience						
Years worked 1994-98	0.0250	1.24	0.0259	1.18	0.0221	1.08
Years worked before 1994	0.0202	3.37	0.0218	3.17	0.0079	1.16
Tenure on current job (yrs.)	0.0180	3.75	0.0180	3.46	0.0104	0.90
Recent Leavers	-0.0385	-0.47				
Years worked 1994–98 x Recent Leavers	-0.0066	-0.22				
Years worked before 1994 x Recent Leavers	-0.0129	-1.43				
Tenure x Recent Leavers	-0.0061	-0.43				
Sample Size	**911**		**574**		**337**	
Dependent Mean (log hourly wage)	**2.14**		**2.24**		**1.98**	
Adj. R-Square	**0.2653**		**0.1987**		**0.1942**	

[1] Those who were on welfare before 1994 but not after.
[2] Those who received any welfare between 1994 and 1998 but were not on welfare in 1993.

Table C-1
Distribution of Single Mothers (Ages 18–44) by Living Arrangement

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Living Arrangement:													
Independent family	59.6	59.1	57.7	57.0	57.3	57.9	56.1	54.7	55.4	54.9	57.0	53.1	53.9
Cohabiting family	5.7	5.7	5.6	6.9	6.8	6.7	7.6	8.6	8.6	9.1	9.3	10.4	11.3
Extended arrangement (total)	34.6	35.2	36.7	36.1	35.9	35.4	36.3	36.7	36.0	36.0	33.7	36.5	34.9
Extended family	29.5	29.7	30.5	29.8	29.5	29.1	30.2	31.4	30.8	30.9	29.1	31.2	30.0
Unrelated family/individuals	5.1	5.5	6.2	6.3	6.4	6.3	6.1	5.3	5.2	5.1	4.6	5.3	4.9

Note: The living arrangements are defined as: Independent family: single mother family with no adults other than the mother in the household; Cohabiting: single mother family with one unrelated male (ages 18–60) and no other adults present; Extended family: single mother family living with related adults or families; Unrelated families: single mother family lives in a household with unrelated families or individuals (other than male partner).

Source: Calculated from micro data files, March CPS Supplement.

Table C-2
Characteristics and Income Source of Single Mothers with Zero Cash Income of Their Own in the Prior Year

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
% with zero reported income													
All single mothers	4.1	4.2	4.0	4.1	4.6	3.5	4.3	4.5	4.2	4.8	5.6	4.8	5.0
Single mothers in the lowest income quintile	19.2	20.8	19.6	21.0	21.8	16.9	21.4	22.4	21.0	23.8	27.7	24.0	25.4
% living with a male partner	1.1	6.6	2.4	3.8	6.4	5.3	6.1	9.1	12.4	9.9	11.4	8.7	14.3
% living with extended family [1]	70.9	60.2	62.0	61.0	62.8	54.1	62.3	66.3	56.9	60.6	64.2	67.2	64.4
% high school dropout	54.1	51.4	36.3	47.7	37.0	48.9	46.1	43.5	41.8	46.0	44.0	45.3	40.0
% age 18-24	52.2	33.9	46.6	43.1	43.4	36.9	38.2	43.4	42.6	34.0	37.3	43.6	39.8
% foreign-born, non-citizen	—	—	—	—	—	18.2	20.8	24.7	18.8	19.5	20.5	21.9	19.3
Source of income:													
% with cash income from other family members or a male partner	67.3	58.3	60.4	57.9	61.5	52.7	59.4	62.8	55.4	53.0	60.8	64.2	61.9
% with cash income from other family and/or household members	84.8	75.0	80.0	71.8	84.7	74.9	72.5	79.3	73.3	72.0	77.7	80.5	82.0
% with cash and/or non-cash income in a household	95.1	90.7	94.0	91.0	97.6	92.3	96.2	95.7	92.2	94.0	94.4	94.6	95.7
Poverty rate:													
Based on official definition (family cash income)	64.8	77.1	72.2	72.9	69.9	78.2	72.8	69.1	71.6	76.3	69.2	57.6	54.6
Based on household cash and non-cash income after taxes	49.3	65.0	61.0	59.7	53.7	64.4	61.6	56.9	58.6	62.5	49.8	54.3	45.8

[1] Extended family is defined as single mother family living with related adults or families.

Note: Characteristics are as of March of the stated year. Income, however, refers to the prior calendar year. Calculated from the micro data files, CPS March Supplement for single mothers ages 18–44 with children under 18.

Table C-3
Characteristics of Single Mothers, Ages 18–44, Total & By Quintile

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
% ages 18–24													
All single mothers	19.6	18.7	19.4	18.3	18.9	19.0	19.2	19.0	19.8	18.7	18.7	20.5	20.8
Lowest quintile	42.3	39.1	43.4	37.2	37.5	39.0	38.8	39.0	40.4	34.8	37.3	40.4	43.9
Second quintile	24.9	28.8	25.0	25.8	26.7	23.3	27.5	26.8	24.9	28.1	24.9	29.1	26.0
Third quintile	17.1	14.8	17.8	16.1	17.9	19.7	16.7	17.5	19.5	16.9	16.6	17.8	18.9
Fourth quintile	9.8	9.4	9.1	10.6	9.5	9.4	10.2	10.8	11.3	9.9	13.3	13.0	14.3
Highest quintile	2.0	2.2	2.0	2.4	2.1	3.1	3.3	2.4	4.1	3.7	2.4	3.3	2.7
% HS dropout													
All single mothers	26.4	25.1	26.1	25.5	23.8	23.9	22.6	22.2	21.4	20.9	20.8	20.0	19.2
Lowest quintile	43.7	45.0	43.4	44.7	41.8	43.7	39.7	40.2	40.4	39.0	40.0	39.0	37.5
Second quintile	44.3	41.9	42.5	41.0	37.7	34.1	34.7	33.9	35.0	30.7	33.7	29.6	29.0
Third quintile	26.1	24.2	26.4	26.9	23.1	25.3	24.6	24.5	20.3	22.0	18.5	19.6	18.6
Fourth quintile	12.3	11.6	13.7	12.7	12.4	12.4	11.9	10.6	9.0	10.4	9.9	9.8	9.6
Highest quintile	4.1	3.7	5.1	3.5	3.6	3.8	2.7	3.4	3.6	2.4	3.0	3.1	3.3
% living with extended family [1]													
All single mothers	29.5	29.7	30.5	29.8	29.5	29.1	30.2	31.4	30.8	30.9	29.1	31.2	30.0
Lowest quintile	41.1	40.3	43.8	41.3	39.8	37.0	44.1	47.4	46.0	41.7	43.1	46.9	42.8
Second quintile	25.9	27.0	29.2	27.9	27.6	28.2	27.3	33.7	27.9	32.1	25.5	26.2	32.1
Third quintile	27.7	25.7	26.1	25.5	28.6	28.4	25.3	27.7	30.0	30.0	27.7	28.5	27.4
Fourth quintile	27.2	29.6	28.6	32.8	27.4	26.1	30.3	26.4	26.8	27.2	27.0	26.8	27.5
Highest quintile	24.8	25.8	24.6	21.6	23.7	25.6	23.9	22.7	23.9	23.3	22.5	27.5	20.6
% foreign-born, non-citizen													
All single mothers	—	—	—	—	—	7.0	7.4	7.8	7.0	6.9	7.3	7.0	7.5
Lowest quintile	—	—	—	—	—	9.7	10.1	12.1	10.6	9.4	13.6	11.2	12.6
Second quintile	—	—	—	—	—	8.1	9.0	8.5	8.8	7.2	10.2	8.6	11.0
Third quintile	—	—	—	—	—	9.1	9.2	9.5	7.9	9.1	6.5	8.1	6.7
Fourth quintile	—	—	—	—	—	4.7	5.4	6.0	4.9	5.1	4.5	3.9	4.4
Highest quintile	—	—	—	—	—	3.2	3.3	3.2	3.2	3.6	1.8	3.6	3.2

[1] Extended family is defined as single mother family living with related adults or families.

Note: Characteristics are as of March of the year shown; calculated from micro data files, CPS March Supplement.

Table D-1
Mean Characteristics of Employed Women, Ages 33–41, in 1998, NLSY79 Cohort (all women and women by lifetime welfare participation)

	All Women [1]	Ever on Welfare [1]	Never on Welfare
Age	36.63	36.66	36.62
% Lives in South	42.60	43.40	42.30
Number of Children			
% Never had a child	19.80	1.10	26.50
% 1 child	18.60	16.90	19.20
% 2 children	34.30	32.50	34.90
(% 3 or more children)	(27.30)	(49.50)	(19.40)
Education			
% High School Dropout	7.70	16.90	4.40
(% High School Graduate)	(41.30)	(49.60)	(38.30)
% Some College	28.30	27.70	28.60
% College Graduate	22.70	5.8	28.70
Race			
% Black non-Hispanic	29.80	51.10	22.20
% Hispanic	18.60	19.00	18.40
(% White non-Hispanic or other)	(51.60)	(29.90)	(59.40)
% Never Married	17.00	21.10	15.60
% Married	59.60	42.40	65.70
(% Previously Married)	(23.40)	(36.50)	(18.70)
AFQT Percentile Score	40.14	23.74	45.99
% Part-time	18.40	17.60	18.70
Work Experience			
Total weeks worked since age 22 (converted to years by dividing by 52)	11.46	8.99	12.34
Tenure on current job (years)	4.62	2.82	5.26
Ever on Welfare (%)	26.30	100.00	0.00

[1] Excludes women who were currently on welfare in 1998.

Note: These are unweighted means of the variables used in the regressions. The form in which the variables were used in regression analysis differ in some indexes. For example, the AFQT score is entered as a spline in the regression.

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Table D-2
Explaining the Wage Differential Between Women Ever on Welfare and Never on Welfare; Results of Wage Regressions: Log Hourly Wage in 1998 of Women, Ages 33–41, NLSY79

	Model 1		Model 2		Model 3	
	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.
Ever on Welfare	-0.3113	-14.33	-0.1223	-5.56	-0.0024	-0.11
Age	-0.0009	-0.22	-0.0046	-1.24	-0.0328	-8.34
Black, non-Hispanic	-0.0834	-3.78	0.0548	2.34	0.0172	0.78
Hispanic	-0.0598	-2.41	0.0888	3.72	0.0767	3.41
Lives in South			-0.0789	-4.56	-0.0791	-4.85
No Child			0.1189	4.19	0.0388	1.42
1 Child			0.1205	4.72	0.0545	2.24
2 Children			0.0739	3.43	0.0245	1.20
Never Married			-0.0481	-1.76	-0.0511	-1.98
Married in 1998			-0.0325	-1.56	-0.0374	-1.9
High School Dropout			-0.1234	-3.70	-0.0772	-2.45
Some College			0.1153	5.54	0.0932	4.75
College Graduate			0.3580	13.83	0.3510	14.41
AFQT 1_29			0.0061	4.42	0.0040	3.09
AFQT 30_100			0.0048	9.76	0.0037	8.02
Part-time					-0.0189	-0.93
Yrs worked since age 22					0.0347	12.27
Tenure on current job (yrs)					0.0176	9.55
Adj. R-Square	**0.0788**		**0.2659**		**0.3511**	
Dependent mean (log hourly wage)			**2.4201**			
Sample size			**3210**			

Appendix Table E
Occupational Distribution and Class of Worker of Employed Single and Married Mothers by Education, 2001

	Total		High School Dropout		High School Graduate		Some College		College Graduate	
	SM	MM	SM	MM	SM	MM	SM	MM	SM	MM
Occupation										
Executive, Administrative, Managerial	10.9	15.1	3.9	3.6	7.9	10.9	13.4	15.5	22.8	22.5
Professional Specialty, Technicians	13.0	24.4	1.9	2.6	5.7	6.0	14.8	21.3	48.7	53.7
Administrative Support, Clerical	25.0	23.8	12.5	10.	26.2	32.0	33.0	31.3	12.8	10.2
Sales	13.5	10.9	17.9	13.8	15.6	12.9	11.1	10.6	7.3	8.0
Services	24.0	16.5	40.0	36.1	26.8	24.4	19.5	15.1	6.0	3.9
All Other Occupations	13.7	9.4	23.7	33.1	17.8	13.9	8.2	6.2	2.4	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Class of Worker										
Government, Federal	2.1	2.3	0.4	0.5	2.0	2.2	2.9	2.6	2.4	2.6
Government, State	4.0	4.5	2.0	1.0	2.8	3.3	4.8	4.4	8.6	6.7
Government, Local	6.5	10.4	3.2	3.7	4.7	7.6	6.3	7.9	17.8	17.9
Private, For-Profit	77.7	66.2	88.8	85.6	82.9	74.0	74.3	67.1	54.6	51.3
Private, Non-Profit	6.1	7.6	3.7	2.4	4.5	4.5	7.2	8.4	12.2	11.6
Self-Employed	3.6	9.1	1.9	6.9	3.1	8.3	4.5	9.7	4.5	10.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from micro data files, CPS Outgoing Rotation Groups. Mothers are restricted to those ages 18–44 with own children under 18 years of age. SM=single mothers. MM=married mothers.

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